

## Grade 7 Math

**\*\*Please note,** this document does not represent the total number of math activities that constitute a Learning Period. Instead, you may find these activities and worksheets helpful in introducing a topic or assessing your child's understanding and mastery of the corresponding concepts or "I Can" Statements.

### LP 1 Math Standards

- **7.RP.1:** I can find a unit rate using fractions that deal with lengths, areas, and other types of quantities.
- **7.RP.2:** I can recognize and show proportional relationships.
- **7.RP.2a:** I can figure out if two quantities have a proportional relationship by testing them through tables and/or graphs.
- **7.RP.2b:** I can find the unit rate in tables, graphs, equations, diagrams, and verbal descriptions.
- **7.RP.2c:** I can show proportional relationships using equations.

| Activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Standard(s) Covered                                                                                                                                                                                                                                                                                                                                                             |
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| <b>MobyMax Lessons</b> <ul style="list-style-type: none"> <li>• Identify ratios</li> <li>• Identify ratios word problems</li> <li>• Identify ratios word problems, Part 2</li> <li>• Solve for an unknown in ratio word problems</li> </ul>                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>• <b>7.RP.1:</b> I can find a unit rate using fractions that deal with lengths, areas, and other types of quantities.</li> </ul>                                                                                                                                                                                                         |
| <a href="#">What are rates and unit rates?</a> - Virtual Nerd video<br><a href="#">How do you use unit rates to compare rates?</a> - Virtual Nerd video<br><a href="#">How do you convert a rate to a unit rate?</a> - Virtual Nerd video<br><a href="#">How do you solve a word problem using unit rates?</a> - Virtual Nerd video<br><a href="#">Calculating Unit Prices</a> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <a href="#">Unit Rates with Fractions</a> | <ul style="list-style-type: none"> <li>• <b>7.RP.1:</b> I can find a unit rate using fractions that deal with lengths, areas, and other types of quantities.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Attend to precision</a></li> </ul> </li> </ul> |

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| <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Track Practice task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Cooking with the Whole Cup task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Molly's Run task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul>                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Find the unit rate</li> <li>• Use proportions to find equivalent rates</li> <li>• Find the missing value in a unit rate word problems</li> </ul>                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>• <b>7.RP.2:</b> I can recognize and show proportional relationships.</li> </ul>                                                                                                                                                                                                                                                                                          |
| <p><a href="#">What's a proportion?</a> - Virtual Nerd video</p> <p><a href="#">How do you know if two ratios are proportional?</a> - Virtual Nerd video</p> <p><a href="#">Intro to Proportional Relationships</a> - Khan Academy video</p> <p><a href="#">Music Companies, Variation 1 task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Sore Throats, Variation 1 task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> | <ul style="list-style-type: none"> <li>• <b>7.RP.2:</b> I can recognize and show proportional relationships.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul> |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Identify proportional relationships</li> <li>• Solve for unknowns in tables of proportional relationships</li> <li>• Test for proportional relationships in tables</li> <li>• Identify proportional relationships using graphs</li> </ul>                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>• <b>7.RP.2a:</b> I can figure out if two quantities have a proportional relationship by testing them through tables and/or graphs.</li> </ul>                                                                                                                                                                                                                            |
| <p><a href="#">How do you find equivalent ratios by making a table?</a> - Virtual Nerd video</p> <p><a href="#">How do you determine whether values in a table are proportional?</a> - Virtual Nerd video</p> <p><a href="#">What does direct variation look like on a graph?</a> - Virtual Nerd video</p>                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• <b>7.RP.2a:</b> I can figure out if two quantities have a proportional relationship by testing them through tables and/or graphs.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> </ul> </li> </ul>                                                   |

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| <p><a href="#">Proportional Relationships: Bananas</a> - Khan Academy video</p> <p><a href="#">Proportional Relationships: Spaghetti</a> - Khan Academy video</p> <p><a href="#">Identify Equivalent Ratios #1</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Identify Equivalent Ratios #2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Do the Ratios Form a Proportion?</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Identify Proportional Relationships from Tables</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Identify Proportional Relationships from Graphs</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Art Class, Variation 1 task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Printable graph paper</a></li> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Buying Coffee task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Robot Races task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> | <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Model with mathematics</a></li> <li>○ <a href="#">Use appropriate tools strategically</a></li> <li>○ <a href="#">Attend to precision</a></li> </ul> |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Identify equivalent ratios</li> <li>• Solve for unknown in equivalent ratios from a table</li> <li>• Solve for the unknown in equivalent ratios Part 1</li> <li>• Solve for the unknown in equivalent ratios Part 2</li> <li>• Solve for the unknown in equivalent ratios Part 3</li> <li>• Plot equivalent ratios</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>• <b>7.RP.2b</b>: I can find the unit rate in tables, graphs, equations, diagrams, and verbal descriptions.</li> </ul>                                                                                                            |
| <p><a href="#">Proportional Relationships: Movie Tickets</a> - Khan Academy video</p> <p><a href="#">What's the constant of variation?</a> - Virtual</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>• <b>7.RP.2b</b>: I can find the unit rate in tables, graphs, equations, diagrams, and verbal descriptions.</li> </ul>                                                                                                            |

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| <p>Nerd video</p> <p><a href="#">What's the direct variation or direct proportionality formula?</a> - Virtual Nerd video</p> <p><a href="#">How do you find the constant of variation from a direct variation equation?</a> - Virtual Nerd video</p> <p><a href="#">Constant of Proportionality: Tables, Graphs, and Equations</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Identify the Constant of Proportionality from Tables</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Identify the Constant of Proportionality from a Graph</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Cider vs. Juice, Variation 1 task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Cider vs. Juice, Variation 2 task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Art Class, Variation 2 task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> | <ul style="list-style-type: none"> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Use appropriate tools strategically</a></li> <li>○ <a href="#">Attend to precision</a></li> </ul> </li> </ul> |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Find equivalent rates using double number lines</li> <li>• Calculate the rate of constant speed word problems</li> <li>• Calculate the distance from constant speed word problems</li> <li>• Calculate the time from constant speed word problems</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>• <b>7.RP.2c:</b> I can show proportional relationships using equations.</li> </ul>                                                                                                                                                                                                                                                                      |
| <p><a href="#">How do you use the formula for direct variation?</a> - Virtual Nerd video</p> <p><a href="#">How do you write an equation for direct variation given a point?</a> - Virtual Nerd video</p> <p><a href="#">How do you write an equation for direct variation from a table?</a> - Virtual Nerd video</p> <p><a href="#">Proportionality task</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>• <b>7.RP.2c:</b> I can show proportional relationships using equations.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> </ul> </li> </ul>                             |

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| <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Solving Proportions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Gym Membership Plans task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Writing Equations for Proportional Relationships: Tables</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Writing Equations for Proportional Relationships: Word Problems</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> | <ul style="list-style-type: none"> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> |
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## LP 2 Math Standards

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| <ul style="list-style-type: none"> <li>• <b>7.RP.2d</b>: I can explain what a point on a graph of a proportional relationship means. I can pay special attention to (0,0) and (1, r) where r is the unit rate.</li> <li>• <b>7.RP.3</b>: I can use what I know about proportional relationships to solve multi-step, real-world problems.</li> <li>• <b>7.NS.1</b>: I can add and subtract rational numbers. I can show addition and subtraction on horizontal and vertical number line diagrams.</li> <li>• <b>7.NS.1a</b>: I can talk about situations in which opposite quantities combine to make 0.</li> <li>• <b>7.NS.1b</b>: I can explain <math>p + q</math> as the number located a distance <math> q </math> from <math>p</math>, in the positive or negative direction, depending on whether <math>q</math> is positive or negative. I know that a number and its opposite have a sum of 0. I can talk about sums of rational numbers by describing real-world situations.</li> <li>• <b>7.NS.1c</b>: I can subtract rational numbers. I can show that the distance between two rational numbers on a number line is the absolute value of their difference. I can apply what I've learned to real-world situations.</li> </ul> |
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| Activity                                                                                                                                                                                                                                                                                                                                                                    | Standard(s) Covered                                                                                                                                                                                                       |
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| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Convert percent into a fraction</li> <li>• Convert percent into a decimal</li> <li>• Find the percent of a number</li> <li>• Know common percentages</li> <li>• Interpret percent in a pie graph</li> <li>• Calculate percent greater than 100%</li> <li>• Determine the percent a number</li> </ul> | <ul style="list-style-type: none"> <li>• <b>7.RP.2d</b>: I can explain what a point on a graph of a proportional relationship means. I can pay special attention to (0,0) and (1, r) where r is the unit rate.</li> </ul> |

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| <p>represents</p> <ul style="list-style-type: none"> <li>Find the total amount given a number and its percentage of the total</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p><a href="#">How do you solve a word problem using the direct variation formula?</a> - Virtual Nerd video</p> <p><a href="#">Interpreting Graphs of Proportional Relationships</a></p> <ul style="list-style-type: none"> <li><a href="#">Answer key</a></li> </ul> <p><a href="#">Block Party Planning: Proportional Relationships Performance Task</a></p> <ul style="list-style-type: none"> <li><a href="#">Answer key</a></li> </ul> <p><a href="#">Walk-a-Thon 2 task</a></p> <ul style="list-style-type: none"> <li><a href="#">Answer key</a></li> </ul>                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li><b>7.RP.2d</b>: I can explain what a point on a graph of a proportional relationship means. I can pay special attention to (0,0) and (1, r) where r is the unit rate.</li> <li><b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li><a href="#">Construct viable arguments and critique the reasoning of others</a></li> <li><a href="#">Use appropriate tools strategically</a></li> <li><a href="#">Attend to precision</a></li> </ul> </li> </ul>                |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>Use ratios with measurement units word problems</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li><b>7.RP.3</b>: I can use what I know about proportional relationships to solve multi-step, real-world problems.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                |
| <p><a href="#">How do you set up a proportion from a word problem?</a> - Virtual Nerd video</p> <p><a href="#">How do you solve a word problem using a proportion?</a> - Virtual Nerd video</p> <p><a href="#">How do you use an equation to find a part of a whole?</a> - Virtual Nerd video</p> <p><a href="#">How do you solve a word problem using ratios?</a> - Virtual Nerd video</p> <p><a href="#">What's a percent of change?</a> - Virtual Nerd video</p> <p><a href="#">How do you figure out a percent of change?</a> - Virtual Nerd video</p> <p><a href="#">How do you figure out if a percent of change is an increase or a decrease?</a> - Virtual Nerd video</p> <p><a href="#">What is the formula for simple interest?</a> - Virtual Nerd video</p> | <ul style="list-style-type: none"> <li><b>7.RP.3</b>: I can use what I know about proportional relationships to solve multi-step, real-world problems.</li> <li><b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li><a href="#">Make sense of problems and persevere in solving them</a></li> <li><a href="#">Reason abstractly and quantitatively</a></li> <li><a href="#">Attend to precision</a></li> <li><a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul> |

[How do you use the formula for simple interest?](#) - Virtual Nerd video

[How do you figure out how much something is marked down?](#) - Virtual Nerd video

[How do you estimate a sale price?](#) - Virtual Nerd video

[How do you figure out the price of a marked-up item?](#) - Virtual Nerd video

[How do you figure out sales tax?](#) - Virtual Nerd video

[How do you figure out a tip?](#) - Virtual Nerd video

[Finding a Percentage of a Number](#)

- [Printable resource](#)

[Percents: Find the Whole](#)

- [Answer key](#)

[Finding Percentages #1](#)

- [Answer key](#)

[Finding Percentages #2](#)

- [Answer key](#)

[Finding Percentages #3](#)

- [Answer key](#)

[Calculating Percentage. Part 1](#)

- [Answer key](#)

[Calculating Percentage. Part 2](#)

- [Answer key](#)

[Percent Word Problems](#)

- [Answer key](#)

[Calculating Percentages Maze](#)

- [Answer key](#)

[Percent of Change Word Problems](#)

- [Answer key](#)

[Markup and Markdown Word Problems](#)

- [Answer key](#)

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| <p><a href="#">Simple Interest Word Problems</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Music Companies, Variation 2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Selling Computers</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Tax and Tip</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Comparing Years</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Chess Club</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Finding a 10% Increase</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Buying Protein Bars and Magazines: Student view</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul> <p><a href="#">The Price of Bread: Student view</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul> <p><a href="#">How Fast is Usain Bolt? Student view</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul> <p><a href="#">Double Discounts: Student view</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p><a href="#">How do you add integers using a number line?</a> - Virtual Nerd video</p> <p><a href="#">How do you subtract integers using a number line?</a> - Virtual Nerd video</p> <p><a href="#">Printable number lines</a></p> <p><a href="#">Operations on the Number Line: Student view</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>• <b>7.NS.1:</b> I can add and subtract rational numbers. I can show addition and subtraction on horizontal and vertical number line diagrams.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Use appropriate tools strategically</a></li> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul> |



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| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Add negative and positive numbers Part 1</li> <li>• Add negative and positive numbers Part 2</li> <li>• Add negative and positive numbers Part 3</li> <li>• Subtract numbers from positive and negative numbers</li> <li>• Use negative numbers in word problems Part 1</li> <li>• Use negative numbers in word problems Part 2</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• <b>7.NS.1a</b>: I can talk about situations in which opposite quantities combine to make 0.</li> </ul>                                                                                                                                                                                                                                                                       |
| <p><a href="#">What is the opposite, or additive inverse, of a number?</a> - Virtual Nerd video</p> <p><a href="#">Opposites and Absolute Value</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Distances on the Number Line 2: Student view</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul> <p><a href="#">Comparing Freezing Points: Student view</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul> <p><a href="#">Distances Between Houses: Student view</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul> <p><a href="#">Rounding and Subtracting: Student view</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul> | <ul style="list-style-type: none"> <li>• <b>7.NS.1a</b>: I can talk about situations in which opposite quantities combine to make 0.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>◦ <a href="#">Reason abstractly and quantitatively</a></li> <li>◦ <a href="#">Construct viable arguments and critique the reasoning of others</a></li> </ul> </li> </ul>                   |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Add negative and positive numbers Part 1</li> <li>• Add negative and positive numbers Part 2</li> <li>• Add negative and positive numbers Part 3</li> <li>• Subtract numbers from positive and negative numbers</li> <li>• Add additive inverses</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>• <b>7.NS.1b</b>: I can explain <math>p + q</math> as the number located a distance <math> q </math> from <math>p</math>, in the positive or negative direction, depending on whether <math>q</math> is positive or negative. I know that a number and its opposite have a sum of 0. I can talk about sums of rational numbers by describing real-world situations.</li> </ul> |
| <p><a href="#">How do you add fractions with the same denominator?</a> - Virtual Nerd video</p> <p><a href="#">How do you add fractions with different</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>• <b>7.NS.1b</b>: I can explain <math>p + q</math> as the number located a distance <math> q </math> from <math>p</math>, in the positive or negative direction,</li> </ul>                                                                                                                                                                                                    |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><a href="#">denominators?</a> - Virtual Nerd video</p> <p><a href="#">How do you add a negative number to a positive number?</a> - Virtual Nerd video</p> <p><a href="#">How do you add two negative numbers?</a> - Virtual Nerd video</p> <p><a href="#">What are the rules for using absolute values to add integers?</a> - Virtual Nerd video</p> <p><a href="#">Integer Addition Rules</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Adding Integers Using Number Lines</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul>                                                                                                                                                                         | <p>depending on whether <math>q</math> is positive or negative. I know that a number and its opposite have a sum of 0. I can talk about sums of rational numbers by describing real-world situations.</p> <ul style="list-style-type: none"> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Construct viable arguments and critique the reasoning of others</a></li> <li>○ <a href="#">Use appropriate tools strategically</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul>                                |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Add negative and positive numbers Part 1</li> <li>• Add negative and positive numbers Part 2</li> <li>• Add negative and positive numbers Part 3</li> <li>• Subtract numbers from positive and negative numbers</li> <li>• Subtract negative numbers</li> <li>• Use negative numbers in word problems Part 1</li> <li>• Use negative numbers in word problems Part 2</li> </ul>                                                                                                                                                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• <b>7.NS.1c:</b> I can subtract rational numbers. I can show that the distance between two rational numbers on a number line is the absolute value of their difference. I can apply what I've learned to real-world situations.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                    |
| <p><a href="#">How do you rewrite subtraction as addition?</a> - Virtual Nerd video</p> <p><a href="#">How do you subtract fractions with the same denominator?</a> - Virtual Nerd video</p> <p><a href="#">How do you subtract fractions with different denominators?</a> - Virtual Nerd video</p> <p><a href="#">How do you subtract a negative number from a positive number?</a> - Virtual Nerd video</p> <p><a href="#">How do you subtract a positive number from a negative number?</a> - Virtual Nerd video</p> <p><a href="#">Integer Subtraction Rules</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Subtracting Integers Using Number Lines</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> | <ul style="list-style-type: none"> <li>• <b>7.NS.1c:</b> I can subtract rational numbers. I can show that the distance between two rational numbers on a number line is the absolute value of their difference. I can apply what I've learned to real-world situations.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Construct viable arguments and critique the reasoning of others</a></li> <li>○ <a href="#">Use appropriate tools strategically</a></li> </ul> </li> </ul> |

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| <a href="#">Differences of Integers: Student view</a> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul> | <ul style="list-style-type: none"> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> |
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### LP 3 Math Standards

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| <ul style="list-style-type: none"> <li>• <b>7.NS.1d</b>: I can add and subtract rational numbers by applying the properties I have learned.</li> <li>• <b>7.NS.2</b>: I can multiply and divide rational numbers using what I have learned about multiplication, division, and fractions.</li> <li>• <b>7.NS.2a</b>: I can explain how properties of operations must be followed when working with multiplication, fractions, signed numbers, etc. I know how to multiply rational numbers in real-world situations.</li> <li>• <b>7.NS.2b</b>: I can explain that integers (with a non-zero divisor) can be divided. I know that the quotient of integers (with a non-zero divisor) is a rational number. I can describe real-world situations involving the quotients of rational numbers.</li> <li>• <b>7.NS.2c</b>: I can multiply and divide rational numbers by applying the properties I have learned.</li> </ul> |
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| Activity                                                                                                                                                                                                                                                                                                                                                                                                  | Standard(s) Covered                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>MobyMax Lessons</b> <ul style="list-style-type: none"> <li>• Add negative and positive numbers Part 1</li> <li>• Add negative and positive numbers Part 2</li> <li>• Add negative and positive numbers Part 3</li> <li>• Add two negative numbers</li> <li>• Subtract numbers from positive and negative numbers</li> <li>• Make a positive sign from two negative signs</li> </ul>                    | <ul style="list-style-type: none"> <li>• <b>7.NS.1d</b>: I can add and subtract rational numbers by applying the properties I have learned.</li> </ul>                                                                                                                                                                                                                                                                       |
| <a href="#">How do you add decimals?</a> - Virtual Nerd video<br><a href="#">How do you subtract decimals?</a> - Virtual Nerd video<br><a href="#">What are the inverse properties of addition and multiplication?</a> - Virtual Nerd video<br><a href="#">How do you subtract a whole number from a fraction?</a> - Virtual Nerd video<br><a href="#">How do you add and subtract a bunch of numbers</a> | <ul style="list-style-type: none"> <li>• <b>7.NS.1d</b>: I can add and subtract rational numbers by applying the properties I have learned.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> </ul> </li> </ul> |

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| <p><a href="#">with different signs?</a> - Virtual Nerd video</p> <p><a href="#">Adding Integers</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Subtracting Integers</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Add and Subtract Integers</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Dizzy Over Decimals: Adding Decimals #1</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Dizzy Over Decimals: Adding Decimals #2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Dizzy Over Decimals: Adding Decimals #3</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Dizzy Over Decimals: Subtracting Decimals #1</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Dizzy Over Decimals: Subtracting Decimals #2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Dizzy Over Decimals: Subtracting Decimals #3</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Add and Subtract Positive and Negative Fractions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Adding and Subtracting Rational Numbers</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Add and Subtract Positive and Negative Mixed Numbers</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Add and Subtract Positive and Negative Fractions and Mixed Numbers</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Adding and Subtracting Integers Puzzle</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> | <ul style="list-style-type: none"> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul>  |
| <p><a href="#">Multiplying and Dividing Rational Numbers</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>• <b>7.NS.2:</b> I can multiply and divide rational numbers using what I</li> </ul> |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>have learned about multiplication, division, and fractions.</p> <ul style="list-style-type: none"> <li>● <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul>                                                                                                                                                                                                                                                    |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>● Multiply and divide positive and negative numbers</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>● <b>7.NS.2a:</b> I can explain how properties of operations must be followed when working with multiplication, fractions, signed numbers, etc. I know how to multiply rational numbers in real-world situations.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p><b>Review:</b> <a href="#">What is the distributive property?</a> - Virtual Nerd video</p> <p><a href="#">What are the multiplication properties of 0 and -1?</a> - Virtual Nerd video</p> <p><a href="#">How do you figure out the sign of a product or quotient?</a> - Virtual Nerd video</p> <p><a href="#">How do you multiply and divide numbers with different signs?</a> - Virtual Nerd video</p> <p><a href="#">Distributive Property of Multiplication</a></p> <ul style="list-style-type: none"> <li>● <a href="#">Teacher guide/Answer key</a></li> </ul> <p><a href="#">Why is a Negative Times a Negative Always Positive?</a></p> <ul style="list-style-type: none"> <li>● <a href="#">Teacher guide/Answer key</a></li> </ul> <p><a href="#">Mixed Equations with Money Amounts Game</a></p> | <ul style="list-style-type: none"> <li>● <b>7.NS.2a:</b> I can explain how properties of operations must be followed when working with multiplication, fractions, signed numbers, etc. I know how to multiply rational numbers in real-world situations.</li> <li>● <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Construct viable arguments and critique the reasoning of others</a></li> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul> |

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| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Multiply and divide positive and negative numbers</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>• <b>7.NS.2b</b>: I can explain that integers (with a non-zero divisor) can be divided. I know that the quotient of integers (with a non-zero divisor) is a rational number. I can describe real-world situations involving the quotients of rational numbers.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p><a href="#">What are multiplicative inverses?</a> - Virtual Nerd video</p> <p><a href="#">What's a reciprocal?</a> - Virtual Nerd video</p> <p><a href="#">What's the reciprocal rule of division?</a> - Virtual Nerd video</p> <p><a href="#">Why can't you divide by 0?</a> - Virtual Nerd video</p> <p><a href="#">Integer Multiplication and Division Rules</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Temperature Change</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul> | <ul style="list-style-type: none"> <li>• <b>7.NS.2b</b>: I can explain that integers (with a non-zero divisor) can be divided. I know that the quotient of integers (with a non-zero divisor) is a rational number. I can describe real-world situations involving the quotients of rational numbers.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Construct viable arguments and critique the reasoning of others</a></li> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul> |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Multiply and divide positive and negative numbers</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>• <b>7.NS.2c</b>: I can multiply and divide rational numbers by applying the properties I have learned.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p><a href="#">How do you multiply decimals?</a> - Virtual Nerd video</p> <p><a href="#">How do you multiply fractions?</a> - Virtual Nerd video</p>                                                                                                                                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>• <b>7.NS.2c</b>: I can multiply and divide rational numbers by</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

[How do you multiply a whole number by a fraction?](#) - Virtual Nerd video

[How do you divide fractions?](#) - Virtual Nerd video

**Review:** [How do you do long division with decimals?](#) - Virtual Nerd video

**Review:** [How do you do divide a decimal by a decimal?](#) - Virtual Nerd video

[Multiplying Integers](#)

- [Answer key](#)

[Dividing Integers](#)

- [Answer key](#)

[Multiply and Divide Integers](#)

- [Answer key](#)

[Multiply and Divide Positive and Negative Fractions](#)

- [Answer key](#)

[Multiply and Divide Positive and Negative Mixed Numbers](#)

- [Answer key](#)

[Multiply and Divide Positive and Negative Fractions and Mixed Numbers](#)

- [Answer key](#)

[Dizzy Over Decimals: Multiplying Decimals #1](#)

- [Answer key](#)

[Dizzy Over Decimals: Multiplying Decimals #2](#)

- [Answer key](#)

[Dizzy Over Decimals: Multiplying Decimals #3](#)

- [Answer key](#)

[Dizzy Over Decimals: Dividing Decimals #1](#)

- [Answer key](#)

[Dizzy Over Decimals: Dividing Decimals #2](#)

- [Answer key](#)

[Dizzy Over Decimals: Dividing Decimals #3](#)

- [Answer key](#)

applying the properties I have learned.

- **Standards for Math Practice:**

- [Reason abstractly and quantitatively](#)
- [Attend to precision](#)
- [Look for and make use of structure](#)
- [Look for and express regularity in repeated reasoning](#)

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| <a href="#">Division with Decimals</a> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <a href="#">Decimal Operations #1</a> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <a href="#">Decimal Operations #2</a> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <a href="#">Decimal Operations #3</a> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <a href="#">Decimal Operations: Follow the Path</a> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <a href="#">Decimal Operations Puzzle</a> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> |  |
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#### LP 4 Math Standards

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| <ul style="list-style-type: none"> <li>• <b>7.NS.2d</b>: I can use long division to change a rational number into a decimal. I can explain how rational numbers end in 0s or eventually repeat.</li> <li>• <b>7.NS.3</b>: I can use addition, subtraction, multiplication, and division to solve real-world problems involving rational numbers.</li> <li>• <b>7.EE.1</b>: I can use what I know about operations to add, subtract, factor, and expand linear expressions.</li> <li>• <b>7.EE.2</b>: I can understand that rewriting an expression in a different way can show how numbers in the problem are related.</li> <li>• <b>7.EE.3</b>: I can calculate real-world math problems using positive and negative rational numbers, including whole numbers, fractions, and decimals. I can convert between different number forms. I can use estimation to make sure my answers are reasonable.</li> <li>• <b>7.EE.4</b>: I can use variables while solving real-world math problems. I can create equations and inequalities to solve problems.</li> </ul> |
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| Activity                                                                                                                                                                                                                                                                      | Standard(s) Covered                                                                                                                                                |
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| <b>MobyMax Lessons</b> <ul style="list-style-type: none"> <li>• Divide whole numbers with a decimal remainder</li> <li>• Convert a simple fraction to a decimal</li> <li>• Convert fractions into terminating decimals</li> <li>• Convert fractions into repeating</li> </ul> | <ul style="list-style-type: none"> <li>• <b>7.NS.2d</b>: I can use long division to change a rational number into a decimal. I can explain how rational</li> </ul> |



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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>decimals</p> <ul style="list-style-type: none"> <li>Divide with repeating quotients</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>numbers end in 0s or eventually repeat.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p><a href="#">What's a terminating decimal?</a> - Virtual Nerd video</p> <p><a href="#">How do you turn a fraction into a terminating decimal?</a> - Virtual Nerd video</p> <p><a href="#">What's a repeating decimal?</a> - Virtual Nerd video</p> <p><a href="#">How do you turn a fraction into a repeating decimal?</a> - Virtual Nerd video</p> <p><a href="#">Writing Rational Numbers as Decimals</a></p> <ul style="list-style-type: none"> <li><a href="#">Answer key</a></li> </ul> <p><a href="#">Rational Numbers as Decimals #1</a></p> <ul style="list-style-type: none"> <li><a href="#">Answer key</a></li> </ul> <p><a href="#">Rational Numbers as Decimals #2</a></p> <ul style="list-style-type: none"> <li><a href="#">Answer key</a></li> </ul> <p><a href="#">Decimal Expansions of Fractions</a></p> <ul style="list-style-type: none"> <li><a href="#">Teacher guide/Answer key</a></li> </ul> <p><a href="#">Repeating Decimal as Approximation</a></p> <ul style="list-style-type: none"> <li><a href="#">Teacher guide/Answer key</a></li> </ul> <p><a href="#">Equivalent Fractions Approach to Non-Repeating Decimals</a></p> <ul style="list-style-type: none"> <li><a href="#">Answer key</a></li> </ul> | <ul style="list-style-type: none"> <li><b>7.NS.2d</b>: I can use long division to change a rational number into a decimal. I can explain how rational numbers end in 0s or eventually repeat.</li> <li><b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li><a href="#">Reason abstractly and quantitatively</a></li> <li><a href="#">Construct viable arguments and critique the reasoning of others</a></li> <li><a href="#">Attend to precision</a></li> <li><a href="#">Look for and make use of structure</a></li> <li><a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul> |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>Solve problems with four operations</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li><b>7.NS.3</b>: I can use addition, subtraction, multiplication, and division to solve real-world problems involving rational numbers.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p><a href="#">What's a complex fraction?</a> - Virtual Nerd video</p> <p><a href="#">How do you simplify a fraction over a fraction?</a> - Virtual Nerd video</p> <p><a href="#">Integer Operations #1</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li><b>7.NS.3</b>: I can use addition, subtraction, multiplication, and division to solve real-world problems involving rational numbers.</li> <li><b>Standards for Math Practice:</b></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                           |

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| <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Integer Operations #2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Integer Operations #3</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Rational Number Operations #1</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Rational Number Operations #2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Rational Number Operations #3</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Dividing Fractions: Word Problems</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Sharing Prize Money</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul> | <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul>                                                                                                                                    |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Evaluate expressions</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>• <b>7.EE.1:</b> I can use what I know about operations to add, subtract, factor, and expand linear expressions.</li> </ul>                                                                                                                                                                                                                                                                                                                                                        |
| <p><a href="#">What Are Like Terms?</a> - Virtual Nerd Video</p> <p><a href="#">How Do You Distribute with Whole Numbers and Fractions?</a> - Virtual Nerd Video</p> <p><a href="#">Writing Expressions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul> <p><a href="#">Combining Like Terms #1</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Combining Like Terms #2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Combining Like Terms #3</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">How to Simplify Algebraic Expressions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Identify Equivalent Linear Expressions</a></p>                                                                                                                   | <ul style="list-style-type: none"> <li>• <b>7.EE.1:</b> I can use what I know about operations to add, subtract, factor, and expand linear expressions.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul> |

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| <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Identifying Equivalent Linear Expressions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Matching Equivalent Expressions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Equivalent Expressions Card Sort</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Writing Equivalent Linear Expressions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Add Linear Expressions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Practice Adding Linear Expressions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Subtract Linear Expressions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Practice Subtracting Linear Expressions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Adding &amp; Subtracting Linear Expressions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Factoring Linear Expressions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Practice Factoring Linear Expressions #1</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Practice Factoring Linear Expressions #2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Expanding and Factoring Linear Expressions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Practice Expanding Linear Expressions #1</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Practice Expanding Linear Expressions #2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Expanding Linear Expressions Using the Distributive Property</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> |  |
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| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Write expressions word problems</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>• <b>7.EE.2:</b> I can understand that rewriting an expression in a different way can show how numbers in the problem are related.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p><a href="#">A Day at the Beach: Identifying and Writing Equivalent Expressions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Starting a Skate Team: Writing and Evaluating Expressions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Equivalent Expressions Word Problems: Part 1</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Equivalent Expressions Word Problems: Part 2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Ticket to Ride</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul> | <ul style="list-style-type: none"> <li>• <b>7.EE.2:</b> I can understand that rewriting an expression in a different way can show how numbers in the problem are related.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                    |
| <p><a href="#">Rational Number Word Problem: Ice</a> - Khan Academy video</p> <p><a href="#">How Do You Solve a Two-Step Equation?</a> - Virtual Nerd Video</p> <p><a href="#">Solving Two-Step Equations Level 1</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Shrinking</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul> <p><a href="#">Discounted Books</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul> <p><a href="#">Who is the Better Batter?</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul>                                                         | <ul style="list-style-type: none"> <li>• <b>7.EE.3:</b> I can calculate real-world math problems using positive and negative rational numbers, including whole numbers, fractions, and decimals. I can convert between different number forms. I can use estimation to make sure my answers are reasonable.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul> |
| <p><a href="#">Solving One-Step Inequalities</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>• <b>7.EE.4:</b> I can use variables while solving real-world math problems. I</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| <a href="#">Solve One-Step Inequalities #1</a> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <a href="#">Solve One-Step Inequalities #2</a> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <a href="#">Solve One-Step Inequalities #3</a> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <a href="#">One-Step Inequality Word Problems</a> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <a href="#">Gotham City Taxis</a> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/Answer key</a></li> </ul> <a href="#">Bookstore Account</a> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <a href="#">Drill Rig</a> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> | <p>can create equations and inequalities to solve problems.</p> <ul style="list-style-type: none"> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Model with mathematics</a></li> <li>○ <a href="#">Attend to precision</a></li> </ul> </li> </ul> |
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## LP 5 Math Standards

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| <ul style="list-style-type: none"> <li>• <b>7.EE.4a</b>: I can solve word problems involving equations such as <math>px+q=r</math> and <math>p(x+q)=r</math>, where <math>p</math>, <math>q</math>, and <math>x</math> are rational numbers. I can compare algebraic and arithmetic solutions and can figure out the order of operations to use.</li> <li>• <b>7.EE.4b</b>: I can solve word problems involving inequalities such as <math>px+q&gt;r</math> or <math>px+q&lt;r</math>, where <math>p</math>, <math>q</math>, and <math>r</math> are rational numbers. I can graph the inequality.</li> <li>• <b>7.G.1</b>: I can use scale drawings of geometric shapes to solve problems. I can figure out actual lengths using scale drawings. I can create a scale drawing of a different size than one I am given.</li> <li>• <b>7.G.2</b>: I can draw geometric shapes when given information about the shape. I can draw triangles when I am given information about their angles or sides. I can realize when the shape drawn will be a unique triangle, more than one triangle, or no triangle.</li> <li>• <b>7.G.3</b>: I can talk about 2D figures that are formed when 3D figures (right rectangular prisms, right rectangular pyramids) are sliced.</li> <li>• <b>7.G.4</b>: I can tell you the formulas for area and circumference of a circle and can use these formulas to solve problems. I can discuss how circumference and area of a circle are related.</li> </ul> |
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| Activity | Standard(s) Covered |
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| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Solve two-step equations</li> <li>• Solve multi-step equations with parentheses</li> <li>• Find the unknown Part 1</li> <li>• Find the unknown Part 2</li> <li>• Find the unknown with a remainder Part 1</li> <li>• Find the unknown with a remainder Part 2</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>• <b>7.EE.4a</b>: I can solve word problems involving equations such as <math>px+q=r</math> and <math>p(x+q)=r</math>, where <math>p</math>, <math>q</math>, and <math>x</math> are rational numbers. I can compare algebraic and arithmetic solutions and can figure out the order of operations to use.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p><a href="#">How Do You Solve a Word Problem with an Equation Using Addition?</a> - Virtual Nerd Video</p> <p><a href="#">How Do You Solve a Word Problem with an Equation Using Subtraction?</a> - Virtual Nerd Video</p> <p><a href="#">How Do You Solve a Word Problem with an Equation Using Multiplication?</a> - Virtual Nerd Video</p> <p><a href="#">How Do You Solve a Word Problem with an Equation Using Division?</a> - Virtual Nerd Video</p> <p><a href="#">How Do You Solve a Word Problem Using an Equation Where You're Multiplying Fractions?</a> - Virtual Nerd Video</p> <p><a href="#">How Do You Solve a Word Problem Using a Two-Step Equation with Decimals?</a> - Virtual Nerd Video</p> <p><a href="#">Solving Equations with Parentheses</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Solve Two-Step Equations #1</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Solve Two-Step Equations #2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Solve Two-Step Equations #3</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Solving Two-Step Equations Level 2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Two-Step Equation Word Problems</a></p> | <ul style="list-style-type: none"> <li>• <b>7.EE.4a</b>: I can solve word problems involving equations such as <math>px+q=r</math> and <math>p(x+q)=r</math>, where <math>p</math>, <math>q</math>, and <math>x</math> are rational numbers. I can compare algebraic and arithmetic solutions and can figure out the order of operations to use.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Model with mathematics</a></li> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul> |

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| <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">A Trip with Two-Step Equations</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Solve Two-Step Equations: Quiz</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Solve equations with inequalities word problems</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>• <b>7.EE.4b</b>: I can solve word problems involving inequalities such as <math>px+q&gt;r</math> or <math>px+q&lt;r</math>, where <math>p</math>, <math>q</math>, and <math>r</math> are rational numbers. I can graph the inequality.</li> </ul>                                                                                                                                                                                                                                                                                                                                           |
| <p><a href="#">How Do You Use Subtraction to Solve an Inequality Word Problem?</a> - Virtual Nerd Video</p> <p><a href="#">How Do You Use Multiplication with Negative Numbers to Solve an Inequality Word Problem?</a> - Virtual Nerd Video</p> <p><a href="#">How Do You Solve a Word Problem Using an Inequality Where You're Multiplying Positive Fractions?</a> - Virtual Nerd Video</p> <p><a href="#">How Do You Solve a Word Problem Using an Inequality Where You're Multiplying Negative Fractions?</a> - Virtual Nerd Video</p> <p><a href="#">How Do You Use Division with Negative Numbers to Solve an Inequality Word Problem?</a> - Virtual Nerd Video</p> <p><a href="#">Solving Two-Step Inequalities #1</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Solving Two-Step Inequalities #2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Solving Two-Step Inequalities #3</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Two-Step Inequality Word Problems</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Fishing Adventures 2</a></p> | <ul style="list-style-type: none"> <li>• <b>7.EE.4b</b>: I can solve word problems involving inequalities such as <math>px+q&gt;r</math> or <math>px+q&lt;r</math>, where <math>p</math>, <math>q</math>, and <math>r</math> are rational numbers. I can graph the inequality.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Model with mathematics</a></li> <li>○ <a href="#">Attend to precision</a></li> </ul> </li> </ul> |

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| <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul> <p><a href="#">Sports Equipment Set</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Solve word problems involving scale drawings</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• <b>7.G.1:</b> I can use scale drawings of geometric shapes to solve problems. I can figure out actual lengths using scale drawings. I can create a scale drawing of a different size than one I am given.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                            |
| <p><a href="#">What is a scale?</a> - Virtual Nerd Video</p> <p><a href="#">What is a scale drawing?</a> - Virtual Nerd Video</p> <p><a href="#">How do you use the scale on a map to find the actual distance?</a> - Virtual Nerd Video</p> <p><a href="#">How do you find the scale of a model?</a> - Virtual Nerd Video</p> <p><a href="#">How do you solve a word problem using a proportion?</a> - Virtual Nerd Video</p> <p><a href="#">How do you solve a scale model using a scale factor?</a> - Virtual Nerd Video</p> <p><a href="#">How do you figure out what size a model should be if you have a scale?</a> - Virtual Nerd Video</p> <p><a href="#">Find Dimensions Using Scale Drawings</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Find Areas Using Scale Drawings</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Find Dimensions From Scale Drawings: Word Problems</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Finding Area From Scale Drawings: Word Problems</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Map Distance</a></p> | <ul style="list-style-type: none"> <li>• <b>7.G.1:</b> I can use scale drawings of geometric shapes to solve problems. I can figure out actual lengths using scale drawings. I can create a scale drawing of a different size than one I am given.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Model with mathematics</a></li> <li>○ <a href="#">Use appropriate tools strategically</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul> |



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| <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> <li>• <b>For extra practice</b>, guide your student through using the map key on a paper map or Google Maps to find the distance between two or more points.</li> </ul> <p><a href="#">Floor Plan</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> <li>• <b>For extra practice</b>, have your student create a scaled floor plan of their bedroom or another room in your home.</li> <li>• <b>For extra practice</b>, have your student look at scale models (planes or cars, for example) and use the scale to determine the item's actual size.</li> </ul> <p><a href="#">Rescaling Washington Park</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Student handout</a></li> <li>• <a href="#">Teacher guide/answer key</a></li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Construct isosceles triangles</li> <li>• Construct right triangles</li> <li>• Construct acute and obtuse triangles</li> <li>• Construct equilateral and scalene triangles</li> <li>• Construct triangles from given angles or sides</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>• <b>7.G.2</b>: I can draw geometric shapes when given information about the shape. I can draw triangles when I am given information about their angles or sides. I can realize when the shape drawn will be a unique triangle, more than one triangle, or no triangle.</li> </ul>                                                                                                                                                                                                                                                                                           |
| <p><a href="#">How do you determine whether a triangle can be formed given three side lengths?</a> - Virtual Nerd Video</p> <p><a href="#">How Many Triangles Can Be Created?</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Constructing Triangles Given Conditions</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Constructing Geometric Shapes</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Ladybug Task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul>                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>• <b>7.G.2</b>: I can draw geometric shapes when given information about the shape. I can draw triangles when I am given information about their angles or sides. I can realize when the shape drawn will be a unique triangle, more than one triangle, or no triangle.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Model with mathematics</a></li> <li>○ <a href="#">Use appropriate tools strategically</a></li> </ul> </li> </ul> |

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>MobyMax Lessons</b> <ul style="list-style-type: none"> <li>● Describe the result of using plane sections</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>● <b>7.G.3:</b> I can talk about 2D figures that are formed when 3D figures (right rectangular prisms, right rectangular pyramids) are sliced.</li> </ul>                                                                                                                                                                                                                                                                                                                                                         |
| <a href="#">Slicing a rectangular pyramid</a> - Khan Academy video<br><br><a href="#">Cross Sections of Three-Dimensional Figures, Part 1</a> <ul style="list-style-type: none"> <li>● <a href="#">Answer key</a></li> </ul> <a href="#">Cross Sections of Three-Dimensional Figures, Part 2</a> <ul style="list-style-type: none"> <li>● <a href="#">Answer key</a></li> </ul> <a href="#">Cube Ninjas!</a> <ul style="list-style-type: none"> <li>● <a href="#">Teacher guide/answer key</a></li> </ul>     | <ul style="list-style-type: none"> <li>● <b>7.G.3:</b> I can talk about 2D figures that are formed when 3D figures (right rectangular prisms, right rectangular pyramids) are sliced.</li> <li>● <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Model with mathematics</a></li> <li>○ <a href="#">Use appropriate tools strategically</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> </ul> </li> </ul> |
| <b>MobyMax Lessons</b> <ul style="list-style-type: none"> <li>● Review circle terms</li> <li>● Calculate the circumference of a circle</li> <li>● Calculate the area of a circle</li> </ul>                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>● <b>7.G.4:</b> I can tell you the formulas for area and circumference of a circle and can use these formulas to solve problems. I can discuss how circumference and area of a circle are related.</li> </ul>                                                                                                                                                                                                                                                                                                     |
| <a href="#">What is circumference?</a> - Virtual Nerd Video<br><br><a href="#">How do you find the circumference of a circle if you know the radius?</a> - Virtual Nerd Video<br><br><a href="#">How do you find the circumference of a circle if you know the diameter?</a> - Virtual Nerd Video<br><br><a href="#">How do you find the radius of a circle if you know the circumference?</a> - Virtual Nerd Video<br><br><a href="#">What is the formula for the area of a circle?</a> - Virtual Nerd Video | <ul style="list-style-type: none"> <li>● <b>7.G.4:</b> I can tell you the formulas for area and circumference of a circle and can use these formulas to solve problems. I can discuss how circumference and area of a circle are related.</li> <li>● <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> </ul> </li> </ul>                                                            |

[How do you find the area of a circle if you know the radius?](#) - Virtual Nerd Video

[How do you find the area of a circle if you know the diameter?](#) - Virtual Nerd Video

[How do you find the radius of a circle if you know the area?](#) - Virtual Nerd Video

#### [Circumference of Circles](#)

- [Answer key](#)

#### [Finding the Circumference of Circles](#)

- [Answer key](#)

#### [Circumference of a Circle](#)

- [Teacher guide/answer key](#)

#### [Approximating the Area of a Circle](#)

- [Teacher guide/answer key](#)

#### [Wedges of a Circle](#)

- [Teacher guide/answer key](#)

#### [Area of Circles](#)

- [Answer key](#)

#### [Finding the Area of Circles](#)

- [Answer key](#)

#### [Measuring the Area of a Circle](#)

- [Teacher guide/answer key](#)

#### [Eight Circles](#)

- [Teacher guide/answer key](#)

#### [Stained Glass](#)

- [Teacher guide/answer key](#)

#### [Designs](#)

- [Teacher guide/answer key](#)

- [Construct viable arguments and critique the reasoning of others](#)
- [Look for and express regularity in repeated reasoning](#)

## LP 6 Math Standards

- **7.G.5:** I can use what I know about angles (supplementary, complementary, vertical, adjacent) to solve multi-step problems. I can figure out the measure of an unknown angle using simple equations.
- **7.G.6:** I can solve real-world problems involving area, volume, and surface area of 2D and 3D shapes made up of triangles, quadrilaterals, cones, polygons, cubes, and right prisms.
- **7.SP.1:** I can discuss the purpose of using statistics. I can understand how generalizations can be made using random and representative samples.
- **7.SP.2:** I can make inferences about data using random samples. I can use samples to estimate or make predictions.
- **7.SP.3:** I can figure out how two sets of data compare to each other and how much the two sets overlap. I can find the difference between their centers.

| Activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Standard(s) Covered                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <b>MobyMax Lessons</b> <ul style="list-style-type: none"> <li>• Complementary Angles</li> <li>• Supplementary Angles</li> <li>• Find the unknown third angle</li> <li>• Vertical angles</li> <li>• Adjacent angles</li> <li>• Find unknown angles in figures in multi-step problems</li> </ul>                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>• <b>7.G.5:</b> I can use what I know about angles (supplementary, complementary, vertical, adjacent) to solve multi-step problems. I can figure out the measure of an unknown angle using simple equations.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                         |
| <a href="#">Angle Relationships Handout/Helpful Resource</a><br><a href="#">Complementary and Supplementary Angles</a> - Khan Academy video<br><a href="#">What are Complementary Angles?</a> - Virtual Nerd video<br><a href="#">What are Supplementary Angles?</a> - Virtual Nerd video<br><a href="#">Vertical Angles</a> - Khan Academy video<br><a href="#">What are Vertical Angles?</a> - Virtual Nerd video<br><a href="#">How Do You Find Angle Measures for Adjacent Angles?</a> - Virtual Nerd video | <ul style="list-style-type: none"> <li>• <b>7.G.5:</b> I can use what I know about angles (supplementary, complementary, vertical, adjacent) to solve multi-step problems. I can figure out the measure of an unknown angle using simple equations.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul> |

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| <p><a href="#">How Do You Use Complementary Angles to Find a Missing Angle?</a> - Virtual Nerd video</p> <p><a href="#">How Do You Use Supplementary Angles to Find a Missing Angle?</a> - Virtual Nerd video</p> <p><a href="#">Angle Relationships Guided Notes</a></p> <p><a href="#">Identifying Complementary, Supplementary, Vertical, and Adjacent Angles</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Solving Problems Using Angle Relationships #1</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Solving Problems Using Angle Relationships #2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Calculate area for composite figures</li> <li>• Calculate surface area for square pyramids</li> <li>• Calculate surface area for trapezoidal prisms</li> <li>• Calculate surface area for objects broken down into right prisms</li> <li>• Calculate volume for objects broken down into right prisms</li> <li>• Find the volume of a rectangular pyramid</li> <li>• Find the volume of a rectangular prism</li> </ul>                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>• <b>7.G.6:</b> I can solve real-world problems involving area, volume, and surface area of 2D and 3D shapes made up of triangles, quadrilaterals, cones, polygons, cubes, and right prisms.</li> </ul>                                                                                                                                                                                                                                          |
| <p><a href="#">Click here</a> for a list of Virtual Nerd videos about area formulas.</p> <p><a href="#">What is a Composite Figure?</a> - Virtual Nerd video</p> <p><a href="#">Click here</a> for a list of Virtual Nerd videos about volume.</p> <p><a href="#">Volume of Triangular Prisms and Cubes</a> - Khan Academy video</p> <p><a href="#">Click here</a> for a list of Virtual Nerd videos</p>                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>• <b>7.G.6:</b> I can solve real-world problems involving area, volume, and surface area of 2D and 3D shapes made up of triangles, quadrilaterals, cones, polygons, cubes, and right prisms.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> </ul> </li> </ul> |

about surface area.

[Finding the Area of a Triangle](#)

- [Answer key](#)

[Area of a Triangle #1](#)

- [Answer key](#)

[Area of a Triangle #2](#)

- [Answer key](#)

[Acute Triangles: Practice Finding Area](#)

- [Answer key](#)

[Obtuse Triangles: Practice Finding Area](#)

- [Answer key](#)

[Right Triangles: Practice Finding Area](#)

- [Answer key](#)

[Geometry Detective: Area of a Triangle #1](#)

- [Answer key](#)

[Geometry Detective: Area of a Triangle #2](#)

- [Answer key](#)

[Geometry Detective: Area of a Triangle #3](#)

- [Answer key](#)

[Area of Parallelograms](#)

- [Answer key](#)

[Area of Parallelograms Practice](#)

- [Answer key](#)

[Area of Trapezoids](#)

- [Answer key](#)

[Area of Trapezoids Practice](#)

- [Answer key](#)

[Obtuse Triangles: Find the Missing Base](#)

- [Answer key](#)

[Acute Triangles: Find the Missing Base](#)

- [Answer key](#)

[Acute Triangles: Find the Missing Height](#)

- [Answer key](#)

- [Look for and make use of structure](#)
- [Look for and express regularity in repeated reasoning](#)

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| <p><a href="#">An Introduction to Surface Area</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Calculating Surface Area #1</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Calculating Surface Area #2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Calculating Surface Area #3</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Calculating Surface Area #4</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Calculating Surface Area #5</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Surface Area Practice: Prisms &amp; Pyramids</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Surface Area of Prisms</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Surface Area of Pyramids</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Surface Area Word Problems</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Volume of Right Prisms</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Sand Under the Swing Set</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul> <p><a href="#">Riley's Renovation: Scale Drawing, Area, and Circumference Performance Task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> |                                                                                                                                                                                                             |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Calculate and interpret mean</li> <li>• Calculate and interpret median</li> <li>• Calculate box-and-whisker plots</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• <b>7.SP.1:</b> I can discuss the purpose of using statistics. I can understand how generalizations can be made using random and representative samples.</li> </ul> |

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| <p><a href="#">What is an Unbiased Sample?</a> - Virtual Nerd video</p> <p><a href="#">Mr. Brigg's Class Likes Math</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul>                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>• <b>7.SP.1:</b> I can discuss the purpose of using statistics. I can understand how generalizations can be made using random and representative samples.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Construct viable arguments and critique the reasoning of others</a></li> </ul> </li> </ul>                                                                                                                                                     |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Calculate and interpret mean</li> <li>• Calculate and interpret median</li> <li>• Calculate box-and-whisker plots</li> </ul>                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>• <b>7.SP.2:</b> I can make inferences about data using random samples. I can use samples to estimate or make predictions.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p><a href="#">How Do You Use a Sample to Make Predictions About a Population?</a> - Virtual Nerd video</p> <p><a href="#">Reasonable Samples</a> - Khan Academy video</p> <p><a href="#">Drawing Inferences Using Data</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Valentine Marbles</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul> | <ul style="list-style-type: none"> <li>• <b>7.SP.2:</b> I can make inferences about data using random samples. I can use samples to estimate or make predictions.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul> |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Calculate and interpret mean</li> <li>• Calculate and interpret median</li> <li>• Calculate box-and-whisker plots</li> </ul>                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>• <b>7.SP.3:</b> I can figure out how two sets of data compare to each other and how much the two sets overlap. I can find the difference between their centers.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                  |



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| <a href="#">How Do You Compare Two Data Sets Using Box-and-Whisker Plots?</a> - Virtual Nerd video<br><br><a href="#">Comparing Distributions with Dot Plots</a> - Khan Academy video<br><br><a href="#">Making Comparative Inferences</a> <ul style="list-style-type: none"> <li><a href="#">Answer key</a></li> </ul> | <ul style="list-style-type: none"> <li><b>7.SP.3:</b> I can figure out how two sets of data compare to each other and how much the two sets overlap. I can find the difference between their centers.</li> <li><b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li><a href="#">Make sense of problems and persevere in solving them</a></li> <li><a href="#">Reason abstractly and quantitatively</a></li> <li><a href="#">Attend to precision</a></li> <li><a href="#">Look for and make use of structure</a></li> </ul> </li> </ul> |
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## LP 7 Math Standards

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| <ul style="list-style-type: none"> <li><b>7.SP.4:</b> I can use what I know about measures of center and variability to infer information about two populations.</li> <li><b>7.SP.5:</b> I can understand what 0, 1/2, and 1 mean in terms of probability. I can identify likely, unlikely, and neither unlikely nor likely when discussing probability.</li> <li><b>7.SP.6:</b> I can approximate the probability of a chance event happening and make predictions about chance events.</li> <li><b>7.SP.7:</b> I can make and use probability models. I can compare models to actual probabilities and explain any major differences.</li> <li><b>7.SP.7a:</b> I can create and use a uniform probability model to figure out the probability of events.</li> </ul> |
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| Activity                                                                                                                                                                               | Standard(s) Covered                                                                                                                                                         |
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| <b>MobyMax Lessons</b> <ul style="list-style-type: none"> <li>Calculate and interpret mean</li> <li>Calculate and interpret median</li> <li>Calculate box-and-whisker plots</li> </ul> | <ul style="list-style-type: none"> <li><b>7.SP.4:</b> I can use what I know about measures of center and variability to infer information about two populations.</li> </ul> |
| <a href="#">What is the Median of a Data Set?</a> - Virtual Nerd video<br><br><a href="#">What is the Mean of a Data Set?</a> - Virtual Nerd video                                     | <ul style="list-style-type: none"> <li><b>7.SP.4:</b> I can use what I know about measures of center and variability to infer information about two populations.</li> </ul> |

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| <p><a href="#">What is the Mode of a Data Set?</a> - Virtual Nerd video</p> <p><a href="#">How Do You Find the Range of a Data Set?</a> - Virtual Nerd video</p> <p><a href="#">How Do You Find the Mode of a Data Set?</a> - Virtual Nerd video</p> <p><a href="#">Mean, Median, and Mode</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Mean, Median, and Mode Practice</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Describing Data Using Mean, Median, Mode, and Range</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Practice Finding Mean</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Practice Finding Median</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Finding the Range</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Practice Finding Range</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">College Athletes task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul> <p><a href="#">Offensive Linemen task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul> | <ul style="list-style-type: none"> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul> |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Understand probability</li> <li>• Calculate probability</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>• <b>7.SP.5:</b> I can understand what 0, 1/2, and 1 mean in terms of probability. I can identify likely, unlikely, and neither unlikely nor likely when discussing probability.</li> </ul>                                                                                                                                                                                                                                              |
| <p><a href="#">What is Probability?</a> - Virtual Nerd video</p> <p><a href="#">What's the Probability?</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>• <b>7.SP.5:</b> I can understand what 0, 1/2, and 1 mean in terms of probability. I</li> </ul>                                                                                                                                                                                                                                                                                                                                          |

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| <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>can identify likely, unlikely, and neither unlikely nor likely when discussing probability.</p> <ul style="list-style-type: none"> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Attend to precision</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> </ul> </li> </ul> |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Predict the relative frequency of an event</li> <li>• Calculate probability</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• <b>7.SP.6:</b> I can approximate the probability of a chance event happening and make predictions about chance events.</li> </ul>                                                                                                                                                                                                                                                                                                                        |
| <p><a href="#">What is Experimental Probability?</a> - Virtual Nerd video</p> <p><a href="#">Experimental Probability</a> - Khan Academy Video</p> <p><a href="#">Intuitive Sense of Probabilities</a> - Khan Academy Video</p> <p><a href="#">Experimental Probability</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Tossing Cylinders task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul> <p><a href="#">Make Predictions Using Theoretical Probability</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Make Predictions Using Experimental Probability</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Heads or Tails task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul> | <ul style="list-style-type: none"> <li>• <b>7.SP.6:</b> I can approximate the probability of a chance event happening and make predictions about chance events.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> <li>○ <a href="#">Look for and express regularity in repeated reasoning</a></li> </ul> </li> </ul>                |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Determine possible outcomes</li> <li>• Determine desired outcomes</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>• <b>7.SP.7:</b> I can make and use probability models. I can compare models to</li> </ul>                                                                                                                                                                                                                                                                                                                                                                 |

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| <ul style="list-style-type: none"> <li>• Calculate theoretical probability with fractions</li> <li>• Calculate theoretical probability with decimals</li> <li>• Calculate theoretical probability with percent</li> <li>• Calculate the probability of opposite events</li> <li>• Compare theoretical probability and experimental probability</li> <li>• Calculate probability</li> </ul>                                                                                                            | <p>actual probabilities and explain any major differences.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p><a href="#">Rolling Dice task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul>                                                                                                                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>• <b>7.SP.7:</b> I can make and use probability models. I can compare models to actual probabilities and explain any major differences.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Make sense of problems and persevere in solving them</a></li> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Model with mathematics</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> </ul> </li> </ul> |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Determine possible outcomes</li> <li>• Determine desired outcomes</li> <li>• Calculate theoretical probability with fractions</li> <li>• Calculate theoretical probability with decimals</li> <li>• Calculate theoretical probability with percent</li> <li>• Calculate the probability of opposite events</li> <li>• Compare theoretical probability and experimental probability</li> <li>• Calculate probability</li> </ul> | <ul style="list-style-type: none"> <li>• <b>7.SP.7a:</b> I can create and use a uniform probability model to figure out the probability of events.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                      |
| <p><a href="#">Introduction to Theoretical Probability</a> - Khan Academy video</p> <p><a href="#">How Do You Find the Probability of a Simple Event?</a> - Virtual Nerd video</p>                                                                                                                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>• <b>7.SP.7a:</b> I can create and use a uniform probability model to figure out the probability of events.</li> <li>• <b>Standards for Math Practice:</b></li> </ul>                                                                                                                                                                                                                                                                                                                                       |

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| <p><a href="#">Simple Probability: Yellow Marble</a> - Khan Academy video</p> <p><a href="#">Simple Probability: Non-Blue Marble</a> - Khan Academy video</p> <p><a href="#">Making Predictions with Probabilities</a> - Khan Academy video</p> <p><a href="#">How Many Buttons task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> <li>• Students can complete this task using family members' shirts or clothes from closets around the house</li> </ul> | <ul style="list-style-type: none"> <li>○ <a href="#">Model with mathematics</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> </ul> |
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## LP 8 Math Standards

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| <ul style="list-style-type: none"> <li>• <b>7.SP.7b</b>: I can create a probability model by looking at the data that results from a chance process.</li> <li>• <b>7.SP.8</b>: I can use lists, tables, tree diagrams, and simulations to find probabilities.</li> <li>• <b>7.SP.8a</b>: I can explain that the probability of a compound event is the fraction of the outcomes in the given sample space.</li> <li>• <b>7.SP.8b</b>: I can use lists, tables, tree diagrams, and simulations to show sample spaces for compound events. I can point out possible outcomes.</li> <li>• <b>7.SP.8c</b>: I can simulate frequencies for compound events.</li> </ul> |
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| Activity                                                                                                                                                                                                                                                                                                                        | Standard(s) Covered                                                                                                                                             |
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| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Calculate experimental probability Part 1 Calculate experimental probability Part 2 Compare theoretical probability and experimental probability</li> <li>• Calculate experimental probability word problems</li> <li>• Calculate probability</li> </ul> | <ul style="list-style-type: none"> <li>• <b>7.SP.7b</b>: I can create a probability model by looking at the data that results from a chance process.</li> </ul> |

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| <p><a href="#">Probability Models Example: Frozen Yogurt</a> - Khan Academy video</p> <p><a href="#">Probability Models</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Probability Dice: Practice with Probability Models</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Experimental Probability Models</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul>                                                           | <ul style="list-style-type: none"> <li>• <b>7.SP.7b</b>: I can create a probability model by looking at the data that results from a chance process.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Model with mathematics</a></li> <li>○ <a href="#">Look for and make use of structure</a></li> </ul> </li> </ul> |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Identify independent and dependent events</li> <li>• Calculate the probability of independent compound events</li> <li>• Calculate the probability of dependent events Part 1</li> <li>• Calculate the probability of dependent events Part 2</li> <li>• Identify mutually inclusive and exclusive events</li> <li>• Calculate the probability of mutually exclusive events</li> <li>• Calculate the probability of mutually inclusive events</li> <li>• Identify the compound events</li> </ul> | <ul style="list-style-type: none"> <li>• <b>7.SP.8</b>: I can use lists, tables, tree diagrams, and simulations to find probabilities.</li> </ul>                                                                                                                                                                                                                                                                                        |
| <p><a href="#">Waiting Times task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul> <p><a href="#">Rolling Twice task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul> <p><a href="#">Red, Green, or Blue task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul>                                                                                                                                              | <ul style="list-style-type: none"> <li>• <b>7.SP.8</b>: I can use lists, tables, tree diagrams, and simulations to find probabilities.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Model with mathematics</a></li> <li>○ <a href="#">Use appropriate tools strategically</a></li> </ul> </li> </ul>              |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Identify independent and dependent events</li> <li>• Calculate the probability of independent compound events</li> <li>• Calculate the probability of dependent events Part 1</li> </ul>                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• <b>7.SP.8a</b>: I can explain that the probability of a compound event is the fraction of the outcomes in the given sample space.</li> </ul>                                                                                                                                                                                                                                                    |

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| <ul style="list-style-type: none"> <li>• Calculate the probability of dependent events Part 2</li> <li>• Identify mutually inclusive and exclusive events</li> <li>• Calculate the probability of mutually exclusive events</li> <li>• Calculate the probability of mutually inclusive events</li> <li>• Identify the compound events</li> </ul>                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p><a href="#">How Do You Determine if Events Are Independent or Dependent?</a> - Virtual Nerd video</p> <p><a href="#">How Do You Find the Probability of Independent Events?</a> - Virtual Nerd</p> <p><a href="#">How Do You Find the Probability of Dependent Events?</a> - Virtual Nerd</p> <p><a href="#">What Are Compound Events?</a> - Virtual Nerd video</p>                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>• <b>7.SP.8a:</b> I can explain that the probability of a compound event is the fraction of the outcomes in the given sample space.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Construct viable arguments and critique the reasoning of others</a></li> </ul> </li> </ul>                                           |
| <p><b>MobyMax Lessons</b></p> <ul style="list-style-type: none"> <li>• Display possible outcomes as a list</li> <li>• Display possible outcomes as a table</li> <li>• Display possible outcomes as a tree diagram</li> </ul>                                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>• <b>7.SP.8b:</b> I can use lists, tables, tree diagrams, and simulations to show sample spaces for compound events. I can point out possible outcomes.</li> </ul>                                                                                                                                                                                                                                                                           |
| <p><a href="#">What is a Sample Space?</a> - Virtual Nerd video</p> <p><a href="#">Sample Spaces for Compound Events</a> - Khan Academy video</p> <p><a href="#">Probability of a Compound Event</a> - Khan Academy video</p> <p><a href="#">What is an Outcome?</a> - Virtual Nerd video</p> <p><a href="#">Die Rolling Probability</a> - Khan Academy video</p> <p><a href="#">How Do You Solve a Problem by Making an Organized List?</a> - Virtual Nerd video</p> <p><a href="#">How Do You Find All Possible Outcomes of an Experiment?</a> - Virtual Nerd video</p> | <ul style="list-style-type: none"> <li>• <b>7.SP.8b:</b> I can use lists, tables, tree diagrams, and simulations to show sample spaces for compound events. I can point out possible outcomes.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Model with mathematics</a></li> <li>○ <a href="#">Use appropriate tools strategically</a></li> </ul> </li> </ul> |

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| <p><a href="#">How Do You Find a Number of Combinations Using the Fundamental Counting Principle?</a> - Virtual Nerd video</p> <p><a href="#">How Do You Use a Tree Diagram to Count the Number of Outcomes in a Sample Space?</a> - Virtual Nerd video</p> <p><a href="#">Counting Outcomes: Flower Pots</a> - Khan Academy video</p> <p><a href="#">Count Outcomes Using a Tree Diagram</a> - Khan Academy video</p> <p><a href="#">Probabilities of Compound Events</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Sample Spaces of Compound Events</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Sitting Across From Each Other task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul> <p><a href="#">Tetrahedral Dice task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Teacher guide/answer key</a></li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                               |
| <p><a href="#">How Do You Use a Simulation to Solve a Problem?</a> - Virtual Nerd video</p> <p><a href="#">Simulate Compound Events #1</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">Simulate Compound Events #2</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> <li>• You will need a 6-sided die or a coin to complete this worksheet.</li> </ul> <p><a href="#">Simulate Compound Events #3</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul> <p><a href="#">A Festival of Fun: Probability Performance Task</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Answer key</a></li> </ul>                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>• <b>7.SP.8c:</b> I can simulate frequencies for compound events.</li> <li>• <b>Standards for Math Practice:</b> <ul style="list-style-type: none"> <li>○ <a href="#">Reason abstractly and quantitatively</a></li> <li>○ <a href="#">Model with mathematics</a></li> <li>○ <a href="#">Use appropriate tools strategically</a></li> </ul> </li> </ul> |