



**GRADES 1 to 12**  
**DAILY LESSON LOG**

School: [DepEdClub.com](http://DepEdClub.com)

Grade Level: **6**


Name of Teacher

Learning Area: **MATHEMATICS**

Teaching Dates and Time: **OCTOBER 7 - 11, 2024 (WEEK 2)**

Quarter: **Second**

OBJECTIVES	Monday	Tuesday	Wednesday	Thursday	Friday
<b>A. Content Standard</b>	The learner demonstrates understanding of order of operations, ratio and proportion, percent, exponents, and integers.	The learner demonstrates understanding of order of operations, ratio and proportion, percent, exponents, and integers.	The learner demonstrates understanding of order of operations, ratio and proportion, percent, exponents, and integers.	The learner demonstrates understanding of order of operations, ratio and proportion, percent, exponents, and integers.	The learner demonstrates understanding of order of operations, ratio and proportion, percent, exponents, and integers.
<b>B. Performance Standard</b>	The learner is able to apply knowledge of order of operations, ratio and proportion, percent, exponents, and integers in mathematical problems and real-life situations.	The learner is able to apply knowledge of order of operations, ratio and proportion, percent, exponents, and integers in mathematical problems and real-life situations.	The learner is able to apply knowledge of order of operations, ratio and proportion, percent, exponents, and integers in mathematical problems and real-life situations.	The learner is able to apply knowledge of order of operations, ratio and proportion, percent, exponents, and integers in mathematical problems and real-life situations.	The learner is able to apply knowledge of order of operations, ratio and proportion, percent, exponents, and integers in mathematical problems and real-life situations.
<b>C. Learning Competency/ Objectives</b>  Write the LC code for each.	1. Find the missing term in a proportion either a direct proportion, an inverse or indirect proportion, and partitive proportion; <b>M6NS-IIb-133</b> 2. Solve word problems in a proportion either a direct proportion, an inverse or indirect proportion, and partitive proportion. <b>M6NS-IIc-134</b>	1. Find the missing term in a proportion either a direct proportion, an inverse or indirect proportion, and partitive proportion; <b>M6NS-IIb-133</b> 2. Solve word problems in a proportion either a direct proportion, an inverse or indirect proportion, and partitive proportion. <b>M6NS-IIc-134</b>	1. Find the missing term in a proportion either a direct proportion, an inverse or indirect proportion, and partitive proportion; <b>M6NS-IIb-133</b> 2. Solve word problems in a proportion either a direct proportion, an inverse or indirect proportion, and partitive proportion. <b>M6NS-IIc-134</b>	1. Find the missing term in a proportion either a direct proportion, an inverse or indirect proportion, and partitive proportion; <b>M6NS-IIb-133</b> 2. Solve word problems in a proportion either a direct proportion, an inverse or indirect proportion, and partitive proportion. <b>M6NS-IIc-134</b>	1. Find the missing term in a proportion either a direct proportion, an inverse or indirect proportion, and partitive proportion; <b>M6NS-IIb-133</b> 2. Solve word problems in a proportion either a direct proportion, an inverse or indirect proportion, and partitive proportion. <b>M6NS-IIc-134</b>
<b>II. CONTENT</b>	<b>TYPES OF PROPORTION</b>	<b>TYPES OF PROPORTION</b>	<b>TYPES OF PROPORTION</b>	<b>TYPES OF PROPORTION</b>	<b>TYPES OF PROPORTION</b>

<b>III. LEARNING RESOURCES</b>					
<b>A. References</b>	<b>K-12 MELC- C.G p223</b>	<b>K-12 MELC- C.G p223</b>	<b>K-12 MELC- C.G p223</b>	<b>K-12 MELC- C.G p223</b>	<b>K-12 MELC- C.G p223</b>
<b>1. Teacher's Guide pages</b>					
<b>2. Learner's Materials pages</b>					
<b>3. Textbook pages</b>					
<b>4. Additional Materials from Learning Resource (LR) portal</b>	SLM and Modules Week 2	SLM and Modules Week 2	SLM and Modules Week 2	SLM and Modules Week 2	SLM and Modules Week 2
<b>B. Other Learning Resource</b>					
<b>III. PROCEDURES</b>					
<b>A. Reviewing previous lesson or presenting the new lesson</b>	<p>A. Find the cross products. Write the symbol for equal = and unequal ≠ in the box.</p> <p>1. <math>\frac{2}{3} = \frac{4}{6}</math> <input type="checkbox"/></p> <p>2. <math>\frac{5}{7} = \frac{10}{14}</math> <input type="checkbox"/></p> <p>3. <math>\frac{8}{9} = \frac{16}{18}</math> <input type="checkbox"/></p> <p>B. Get the product of both means and the product of both extremes. If both products are the same, write <b>PROPORTION</b> or <b>NOT PROPORTION</b>, if they are not.</p> <p>1. 10 : 13 and 40 : 52 =</p> <p>2. 5 : 10 and 10 : 20 =</p> <p>3. 12 : 17 and 36 : 501 =</p>	Recall past lesson.	Recall past lesson.	Recall past lesson.	Recall past lesson.
<b>B. Establishing a purpose for the lesson</b>	What do you usually do during weekends? How do you earn an extra money during weekends?	What are your house hold chores? What do you get if you finish your chores? Let us study the following problem?	Our country experience different calamities throughout the year. As a student, how can you help people who are affected by these calamities?	Who among you here likes to ride a bike?  Who are you biking with? What must you do to avoid injury in riding a bike? Let's study this problem.	Look at the picture.  Do you like chocolates? Do you share it with your friends?
<b>C. Presenting examples/ instances of the new lesson</b>	During weekends, Faye helps her mother sell buko juice. For every 2 buko, Faye adds 3 liters of water. How many liters of water does she need if she have 6 buko so that he will have the same taste?	Fabian Family held a family contest, whoever finish their household chores first will get the highest prize and each respectively. The total amount of prize is Php240 to be shared in a ratio of 3 : 2 : 1 accordingly. How much will the first prize, second prize, and third prize be?	<b>Direct Proportion</b> There are 120 families in the evacuation center consumed 1500 kilos (kgs) of donated rice for 3 weeks . If there were only 1000 kilos (k) of NFA rice, how long will the families consume this volume of rice?	<b>Inverse Proportion</b> It takes Robin 20 minutes to ride his bicycle at 20 kph form home to grocery store. To shorten his travel time to 16 minutes for the same distance, how fast should he cycle?	<b>Partitive Proportion</b> A glass of jar has 64 chocolates, Pepe, Dave and Rey will share the chocolates in the ratio 1:1:2. How many chocolates will each one of them get?
<b>D. Discussing new concepts and practicing new skills #1</b>	What is the first ratio? What is the second ratio? What is the missing term?	This problem presented a Partitive Proportion, <i>wherein a whole is divided into parts</i>	From the given situation above, you can see that the more kilos of rice there is, the longer it will last		<b>Understand</b> A) What is asked? The number of chocolates that each will get.

	<p>This problem presented a <b>Direct Proportion</b>, wherein <i>when one quantity increases, the other quantity also increases at the same rate and vice versa</i>. To find the missing term in a direct proportion, follow this set-up, wherein first and third term are the same quantities, while second term and fourth term are of the same quantities</p> <p>The first ratio is 2 buko : 3 L of water, while the second ratio is 6 buko : ( L of water )</p> <p>Solution: multiply the means <math>3 \times 6 = 18</math> To check: <math>2 : 3 = 6 : 9</math> multiply the extremes <math>2 \times N = 18</math> <math>18 \div 2 = 9</math> <math>2 \times N = 18</math> <math>2 \times 9 = 18</math> <math>18 \div 2 = 9</math> <math>3 \times 6 = 18</math></p> <p>So, the cross products should be equal, to form a proportion.</p>	<p>that is <i>proportional to the given ratio</i>. To find the missing term in a direct proportion, follow these steps: Formula: Let <b>n</b> be the amount each of them will get: In equation, we write it as :</p> <p><math>3n + 2n + 1n = \text{Php}240</math> <math>6 \times n = \text{Php}240</math> <math>n = \text{Php}240 \div 6</math> <math>n = \text{Php}40</math></p> <p>Therefore <math>3 \times n = 3 \times 40 = 120</math> <math>2 \times n = 2 \times 40 = 80</math> <math>1 \times n = 1 \times 40 = 40</math> = Php240</p> <p>To check: <math>120 + 80 + 40 = \text{Php}240</math></p>	<p>for 120 families. This situation is example of <b>direct proportion</b>.</p> <p>Thus, we have;</p> <p><math>\frac{\text{No. of kilos of rice}}{\text{No. of weeks}} = \frac{\text{No. of kilos of rice}}{\text{No. of weeks}}</math></p> <p><math>\frac{1500}{3} = \frac{1000}{n}</math></p> <p><math>1500n = 3000</math></p> <p><math>n = 2</math></p> <p>Therefore, there are 1000 kilos of rice consumed in 2 weeks.</p> <p><b>Direct proportion</b>, when one quantity increases ,the other quantity increases at the same rate and vice versa.</p> <ul style="list-style-type: none"><li>The product of the means should be equal to the product of the extremes or the cross products should be equal. Wherein first and third term are the same quantities, while second term and fourth term are of the same quantities</li></ul>	<p>Let the desired speed be x kph. Speed (kph) <math>20 : x</math> Time (in minutes) <math>20 : 16</math> The faster the bicycle is driven, the less time is required to reach the destination. So, this is an inverse proportion.</p> <table><tr><td>Speed needed to shorten travel time to 16 minutes</td><td><math>x = 20</math></td><td>Speed needed to reach a travel time of 20 minutes</td></tr><tr><td>Time taken when the speed is 20 kph</td><td>20</td><td>Time taken when the speed is x kph</td></tr></table> <p><math>16 \times x = 20 \times 20</math> <math>16x = 400</math> <math>16 : 16</math> <math>x = 25</math></p> <p>Answer: Robin should cycle at 25 kph.</p> <p><b>Inverse or indirect proportion</b>, when one quantity increases, the other quantity decreases , and vice versa.</p> <ul style="list-style-type: none"><li>The product of the means should be equal to the product of the extremes or the cross products should be equal but you must follow this set-up : ( colon form ) Original Amount : New Amount = New No. of Days : Original No. of Days ( fraction form ) <math>\frac{\text{Original Amount}}{\text{New Amount}} = \frac{\text{New No. of Days}}{\text{Original No. of Days}}</math></li></ul>	Speed needed to shorten travel time to 16 minutes	$x = 20$	Speed needed to reach a travel time of 20 minutes	Time taken when the speed is 20 kph	20	Time taken when the speed is x kph	<p>B) What are the given facts? 64 chocolates Chocolates will be shared in the ratio 1:1:2 <b>Plan:</b> Strategy: Write a partitive proportion to solve the problem. Solve. Let n be the number of chocolates each of them will get. Let 2n be the number of chocolates one of them with two parts will get. Write the ratio 1:1:2 as n:n:2n. Adding the numbers; <math>1 + 1 + 2 = 4</math> <math>n + n + 2n = 64</math> <math>4n = 64</math> <math>n = 16</math> Since <math>2n = 2 \times 16 = 32</math>, then n:n:2n = 16:16:32. Answer: Pepe, and Dave will both have 16 chocolates each, while Rey will have 32 chocolates. Check: Add all the chocolates received by Pepe, Dave and Rey. <math>16 + 16 + 32 = 64</math> <math>64 = 64</math></p> <p><b>Partitive proportion</b>, a whole is divided into parts that is proportional to the given ratio</p> <ul style="list-style-type: none"><li>First add the quantities in the ratio, Second divide the sum by the whole number, Third multiply the quotient to each of the quantity in the ratio.</li></ul>
Speed needed to shorten travel time to 16 minutes	$x = 20$	Speed needed to reach a travel time of 20 minutes									
Time taken when the speed is 20 kph	20	Time taken when the speed is x kph									
<p><b>E. Discussing new concepts and practicing new skills #2</b></p>	<p>The orphanage has enough food to feed 30 orphan for 12 days. If 10 more orphans are added, how many days will the same amount of food last?</p> <p>This problem presents an <b>Inverse or Indirect Proportion</b>, wherein <i>when one quantity increases, the other quantity decreases and vice versa</i>. In this proportion, the</p>	<p>1. At the school canteen</p> <p>a) 3 pieces of pad paper cost 45 cents 21 pieces of pad paper cost ____</p> <p>b) 4 colored pencils cost 25 pesos 12 colored pencils cost ____</p> <p>c. 2 boiled bananas cost ₱3.50. 10 boiled bananas cost ____</p>	<p>Solve the problems.</p> <p>a) A motorist travels 275 km in 5 hours. How far can he travel in 9 hours at the same speed? Proportion: _____ Answer: _____</p> <p>b) Two buses can transport 130 people. How many buses are needed to transport 780 people? Proportion: _____ Answer: _____</p>	<p>Identify the type of proportion that the following problems illustrate. Then solve the problems in a piece of paper.</p> <p>1.) A car is able to travel 210 km in 3 hours. How far can it travel in 5 hours?</p> <p>2.) Five people can finish painting a wall in 5 hours. If only 2 people are available, how many hours do they have to work to finish the same job?</p>							

	<p>quantities change in opposite directions, that is, as one quantity increases (number of people), the other quantity decreases (number of days)</p> <p>To find the missing term in an inverse or indirect proportion, follow this set-up:</p> <p>Original Number of people: New Number of People= New No. of Days: Original No. of Days</p> <div><p>Solution :</p><table><tr><td>30</td><td>:</td><td>40</td><td>=</td><td></td><td></td><td>N</td><td>:</td><td>12</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>means</td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>extremes</td></tr></table><p>Therefore : multiply the extremes <math>30 \times 12 = 360</math>      To check : <math>30 : 40 = 9 : 12</math>  multiply the means <math>40 \times N = 40</math>  <math>360 : 40 = 9</math></p></div> <p>So, <i>the product of the means is equal to the product of the extremes.</i></p> <p>Here is another solution:</p> <p>To solve word problems in an inverse or indirect proportion follow this proper set-up</p> <p>Step 1      Write the proportional relationship following this set-up</p> $\frac{\text{Original Amount}}{\text{New Amount}} = \frac{\text{New No. of Days}}{\text{Original No. of Days}} \quad (\text{fraction form})$ <p>Step 2      Convert to equation, can be in fraction form or colon form</p> $\frac{30}{40} = \frac{N}{12}$ <p>Step 3      Find the cross products of the given proportion</p> <p>Step 4      Check if the products are equal.</p>	30	:	40	=			N	:	12						means												extremes			<p>3.) At 65 km/hr, Alfred can reach home in 50 minutes. At what speed should he drive his car so that he can reach home 10 minutes earlier?</p> <p>4.) A land area was divided among the three heirs in the ratio 5:2:4. If the largest share was 20 hectares of land, what is the total are of the land?</p> <p>5.) A certain amount of money is divided among Rio, Kim and Leo in the ratio 5:7:3. If Leo gets Php 24,000.00, how much is the total amount?</p> <p>Analyze and solve the problems.</p> <p>1) If 4 farmers can plow a 3-hectare land in 6 days, how long will 8 farmers do it?</p> <p>2) Twelve painters can paint a building in 10 days. How many painters are needed to paint it in 6 days.</p> <p>3) A house contractor has enough money to pay 8 workers for 15 days. If he adds 4 more workers, for how many days can he pay them at the same rate?</p>	<div><p>Mang Lando is raising ducks, chickens, and turkeys in a ratio of 4:2:3. When he counted his animals, it totaled 270. How many chicken has Mang Lando?</p><table><tr><td>Ducks</td><td>40</td><td>30</td><td>30</td><td>30</td></tr><tr><td>Chickens</td><td>30</td><td>30</td><td></td><td></td></tr><tr><td>Turkeys</td><td>30</td><td>30</td><td>30</td><td></td></tr></table><p>270</p><p>We need to distribute 270 equally into each block</p><p>We need to divide 270 by 9 blocks. So, <math>270 \div 9 = 30</math></p><p>Answer: 60 chickens</p><p>What is asked in the problem? <math>30 + 30 = 60</math></p></div> <p>Analyze and solve each problem.</p> <p>1) Two numbers are in the ratio 5:3. if the sum is 80, find the two numbers.</p> <p>2. The ratio of chairs to tables is 2:7. There are 180 chairs and tables in a party. How many are there of each kind?</p> <p>3. The sum of two numbers is 215. if the ratio is 2:3, find the larger number.</p>	Ducks	40	30	30	30	Chickens	30	30			Turkeys	30	30	30	
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<b>F. Developing mastery (leads to Formative Assessment 3)</b>	<p>Solve and determine whether each is a proportion or not</p> <table><tr><td>1.) 2/3 and 4/6</td><td>=</td><td>_____</td></tr><tr><td>2.) 6/7 and 24/28</td><td>=</td><td>_____</td></tr><tr><td>3) 2/5 and 4/12</td><td>=</td><td>_____</td></tr><tr><td>4.) 28/42</td><td>=</td><td>_____</td></tr></table>	1.) 2/3 and 4/6	=	_____	2.) 6/7 and 24/28	=	_____	3) 2/5 and 4/12	=	_____	4.) 28/42	=	_____		<p>Direct Proportion (Answer in colon form.)</p> <p>The children are having a field trip to Rizal Park at Dapitan City. Two buses will transport 130 pupils. How many buses are needed to transport 780 pupils?</p>	<p>Inverse or Indirect Proportion (Answer in fraction form.)</p> <p>Eight sewers can finish the job in 5 days? But only 2 sewers are hired, in how many days will it take the sewers to finish the same job?</p>	<p>Partitive Proportion</p> <p>The ratio of boys to girls at a school is 5 : 7 ? The total population of the school is 360 pupils. How many boys and girls are there ?</p>																														
1.) 2/3 and 4/6	=	_____																																													
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	<div> <div>and <math>\frac{2}{3}</math></div> <div>5.) <math>\frac{15}{20}</math></div> <div>and <math>\frac{5}{6}</math></div> </div> <div> <div>_____</div> <div>—</div> <div>=</div> <div>_____</div> <div>—</div> <div>=</div> <div>_____</div> <div>—</div> </div>				
<b>G. Finding practical application of concepts and skills in daily living</b>					
<b>H. Making generalizations and abstractions about the lesson</b>	<p>In direct proportion, when one quantity increases, the other quantity increases at the same rate and vice versa. In inverse proportion, when one quantity increases, the other quantity decreases vice—versa. In partitive proportion, a whole is divided into parts that is proportional to the given ratio.</p>	<p><b>What is proportion?</b></p> <p><b>How do we find the missing term?</b></p>	<p>. How do you solve problems involving direct proportion? What must you remember when setting a direct proportion?</p>	<p>What is an inverse proportion? How does it differ from a direct proportion? How do we solve for an inverse proportion?</p>	<p>How do you solve word problems involving partitive proportion? What are the processes involved?</p>
<b>I. Evaluating learning</b>	<p>Solve each proportion.</p> <p>1) <math>\frac{5}{12} = \frac{35}{n}</math> = _____</p> <p>2) <math>\frac{n}{52} = \frac{180}{120}</math> = _____</p> <p>3) <math>\frac{18}{n} = \frac{21}{28}</math> = _____</p> <p>4) <math>\frac{n}{4} = \frac{24}{6}</math> = _____</p> <p>5) <math>\frac{10}{16} = \frac{n}{56}</math> = _____</p>	<p>Find the missing term.</p> <p>1. <math>\frac{24}{6} = \frac{35}{N}</math>      4. <math>\frac{n}{4} = \frac{24}{6}</math></p> <p>2. <math>\frac{39}{2} = \frac{n}{4}</math>      5. <math>\frac{10}{16} = \frac{n}{56}</math></p> <p>3. <math>\frac{27}{n} = \frac{9}{5}</math></p>	<p>Analyze each problem and write a proportion to solve it. Draw a diagram to help you when necessary.</p> <p>1) A tree cast a shadow of 12 metres when a 5-metre pole cast a shadow of 4 metres. How tall is the tree?</p> <p>2) At the rate of 3 items per ₱100, how much will 12 items cost?</p> <p>3. A car travels 72 km on 8 litres of gasoline. At the same rate, about how far can it travel on 11 litres of gasoline?</p>	<p>Set the following proportions and solve.</p> <p>1) A stock of food is enough to feed 50 persons for 14 days. How many days will the food last if 20 more persons will be added?</p> <p>2) Four equal pumps can fill a tank in 42 minutes. How long will 6 pumps of the same kind fill the tank?</p> <p>3) If 3 farmers can plow a field in 4 days, how long will 6 farmers do it?</p>	<p>Solve the following problem.</p> <p>Mang Francina is raising chicken and ducks. The sum of his chicken and ducks is 56. If the ratio of his chicken to ducks is 5:3, how many chicken has Mang Francina?</p>

			4) The ratio of duck eggs to chicken eggs in an egg store is 2:7. if there are 312 duck eggs in the store, how many chicken eggs are there? 5) The ratio of men to women working for a construction company is 10:3. If there are 21 women in the construction company, how many men are there?	4) Five sewers can finish 200 children's dresses in 8 days. How many days will it take 10 sewers to finish the same number of children's dresses? 5) I have enough money to have a vacation of 12 days. If I send ₱500 a day for how many days will my money last if I decide to spend only ₱400 a day?	
<b>J. Additional activities for application or remediation</b>					
<b>IV. REMARKS</b>					
<b>V. REFLECTION</b>					
<b>A..No. of learners who earned 80% in the evaluation</b>	___ of Learners who earned 80% above	___ of Learners who earned 80% above	___ of Learners who earned 80% above	___ of Learners who earned 80% above	___ of Learners who earned 80% above
<b>B.No. of learners who require additional activities for remediation who scored below 80%</b>	___ of Learners who require additional activities for remediation	___ of Learners who require additional activities for remediation	___ of Learners who require additional activities for remediation	___ of Learners who require additional activities for remediation	___ of Learners who require additional activities for remediation
<b>C. Did the remedial lessons work? No. of learners who have caught up with the lesson</b>	___Yes ___No  ___ of Learners who caught up the lesson	___Yes ___No  ___ of Learners who caught up the lesson	___Yes ___No  ___ of Learners who caught up the lesson	___Yes ___No  ___ of Learners who caught up the lesson	___Yes ___No  ___ of Learners who caught up the lesson
<b>D. No. of learners who continue to require remediation</b>	___ of Learners who continue to require remediation	___ of Learners who continue to require remediation	___ of Learners who continue to require remediation	___ of Learners who continue to require remediation	___ of Learners who continue to require remediation
<b>E. Which of my teaching strategies worked well? Why did these work?</b>					
<b>F. What difficulties did I encounter which my principal or supervisor can help me solve?</b>					
<b>G. What innovation or localized materials did I use/discover which I wish to share with other teachers?</b>					