

SUMMER



4th grade REVIEW

Problem Solving,

Do-Anytime Math Activities,

and

Digital Resource Suggestions

for Summer Practice

Name _____

Problem of the Week

Read the problem and think about its meaning.

Can you draw a model to show your understanding?

Solve the problem and **show your work or explain your thinking**.

Can you solve it in a different way to check your thinking?

Week 1 - On the opening day at a toy store, every 3rd customer gets a ball and every 4th customer gets a stuffed animal. 60 people come to the store. How many get both a ball and a stuffed animal?

Week 2 - Dennis opens a book. The sum of the two consecutive page numbers that he sees is 1,125. What are the two page numbers?

Week 3 - Jessie had a whole graham cracker. Minah had only part of another graham cracker. Jessie gave Minah some of her graham cracker. Now they have the same fractional part of a graham cracker.

What fractional part of a graham cracker did Minah have at first?

Week 4 - Which of the following decimals has a value closest to 1? Explain your answer.

0.5

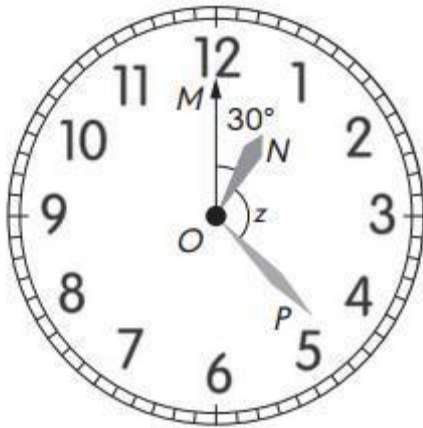
0.9

0.54

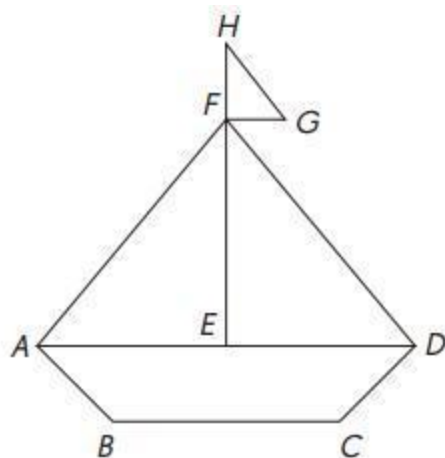
0.87

Week 5

The clock shows the hands of the clock at a certain time. Find the measure of $\angle z$, if the measure of $\angle MOP$ is 135° .



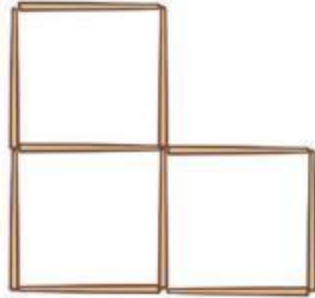
Week 6 - Identify 3 pairs of line segments that are parallel and 3 pairs of line segments that are perpendicular in the figure below.



Parallel: _____ and _____, _____ and _____,
 _____ and _____

Perpendicular: _____ and _____, _____ and _____
 _____ and _____

Week 7 - The picture shows 10 toothpicks arranged to form 3 squares. How can you make the figure show only 2 squares by moving 2 toothpicks?



Week 8 - A helicopter makes a 1 hour scenic tour over Mount Rushmore 3 days of the week. The gasoline cost for each hour is \$208.

How many minutes does the helicopter spend in the air each week? What is the gasoline cost for the week?

Week 9 - The length of a sandbox is twice its width. The rectangular sandbox has an area of 50 square yards. Find the length and width of the sandbox.

Week 10-

a) The 9 in 89.4 stands for _____.

b) $4.6 - 0.46$ is equal to _____.

Do-Anytime Math for Summer Practice

Using dice or number cards, generate 2 or 3 digit numbers and:

- Use the number you made as the answer to a problem - Make questions that have that answer using as many operations as you can (+, -, $\times$, $\div$).
- Mentally add, subtract or multiply with 1, 10, 100, 1000.
- Find all the factors of that number.
- Can you make that amount with money? In more than 1 way?
- If that number was in inches, how long would it be?
- Choose 3, 4, or 5 cards and a Target number card. Can you make the target with any of your number cards by using any combinations of operations to solve? Use as many of the cards as possible.
- Take 3 or 4 cards and make 1-or 2-digit numbers to multiply. Play against another person to see who gets the largest/smallest product. The same activity can be played with addition or subtraction.
- Practice any of your basic facts with dice or number cards.

When driving in the car:

- Look for examples of numbers on signs and read them.
- Tell how the numbers are used. What are they measuring?
- Can you find another example where that example increased or decreased on a different sign? By how much?
- Can you mentally change that number by adding or subtracting 10, 100, or 1000?

Practice your 4th grade math skills:

- 4th grade skills include addition and subtraction with up to 5-digit numbers with and without regrouping, multiplication with up to 3 digits by 2 digits, division with a 1-digit divisor, fraction concepts (equivalents, comparing, ordering, adding and subtracting fractions, fractions of a set), decimal concepts (to hundredths), time, and geometry (lines, angles, properties of quadrilaterals, area, perimeter).
- Look for 4th grade Summer Review workbooks in your local bookstore.

Digital Resources for Summer Math Practice



Some websites (or apps) suggested by our teachers:

For basic fact practice:

- <https://www.reflexmath.com/> (use log-in from school)
- <http://www.Xtramath.com>
- <http://www.multiplication.com/quiz/multiplication-self-correcting-quizzes> - look in the top menu bar for other operations

For tutorials and practice videos:

- Khan Academy <https://www.khanacademy.org>
- You Tube https://www.youtube.com/results?search_query=4th+grade+math
- Math Antics <https://mathantics.com/>

Websites for activity ideas on a range of math topics:

- Splash Learn: <https://www.splashlearn.com/> (use log-in from school)
- <https://bedtimemath.org/what-we-do/apps/>
- <http://gregtangmath.com/index> (for interactives or printable resources)
- <http://illuminations.nctm.org/Search.aspx?view=search&gr=3-5>
- <http://www.hoodamath.com/games.html>
- www.abcya.com
- <https://www.turtlediary.com/games/fourth-grade.html>

For bar modeling practice:

- <http://www.mathplayground.com/thinkingblocks.html>

Apps for activity ideas on a range of math topics:

- Quick Math Jr
- Animal Math

Grade 4 Problem of the Week Answers

- 1) 5 customers get both a ball and a stuffed animal.
- Find the common multiples of 3 and 4 up to 60.

Multiples of 3:

3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60

Multiples of 4:

4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60

Common multiples are 12, 24, 36, 48, 60, so those 5 customers are the customers who would get both a ball and a stuffed animal.

- 2) Strategies may vary. Here is one way to think about this problem.
If the sum of the consecutive numbers is 1,125, then finding half of that would tell you the middle. $1,125 \div 2 = 562 \text{ R } 1$.
So that means, the page numbers are 562 and 563.

- 3) If Jessie gave Minah $\frac{1}{4}$ of his whole graham cracker, he has $\frac{3}{4}$ left.

If Minah now has the same amount as Jessie, she has $\frac{3}{4}$.

So subtract $\frac{3}{4} - \frac{1}{4}$ to find what she had, before Jessie gave her any.

Minah had $\frac{2}{4}$ (or $\frac{2}{4}$ (or $\frac{1}{2}$) of a graham cracker.

- 4) 0.9 is the closest to 1.
Convert the first 2 decimals to hundredths so that it is easier to compare.
Think where they would fit on a number line. 0.50, 0.90, 0.54, 0.87
Or think about cents. 90¢ is more than the other amounts.

- 5) Students must first see that angle MOP includes angle z.
If angle MOP is 135° , then subtract 30° for angle MON.
You are left with the measure of angle z, which is 105° .

- 6) Parallel segments:

$\overline{FG}$ and $\overline{ED}$ / $\overline{AD}$ and $\overline{BC}$ / $\overline{FG}$ and $\overline{AD}$ / $\overline{FG}$ and $\overline{BC}$ /
 $\overline{FG}$ and $\overline{AE}$ / $\overline{BC}$ and $\overline{ED}$ / $\overline{HG}$ and $\overline{FD}$

Perpendicular segments:

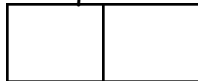
$\overline{AD}$ and $\overline{EF}$ / $\overline{HF}$ and $\overline{FG}$ / $\overline{HE}$ and $\overline{FG}$ /
 $\overline{HE}$ and $\overline{AD}$ / $\overline{FE}$ and $\overline{FG}$

7)



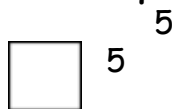
- 8) $1\frac{1}{2}$ hours = 90 minutes
 $3 \times 90 = \underline{270 \text{ minutes}}$ flying each week = 4.5 hours
 $4.5 \times \$208 = \underline{\$936 \text{ spent for gas}}$ each week.

- 9) Strategies may vary. Here is one way to think about this problem.
 If the length of the sandbox is twice its width, think of the sandbox as being made of 2 equal square boxes.

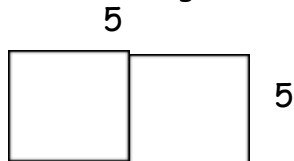


Since the total area is 50 square yards, each of the smaller boxes must have half of that area. $50 \div 2 = 25$ square yards.

If the area of each smaller square box is 25 square yards, what must the dimensions of that square be? $5 \times 5 = 25$



So the length of the big sandbox is 10 yards, and the width is 5 yards.



- 10) a) 9 ones

b) 4.14