## Problem of the Day September

What is $1 \frac{1}{2}$ times 2? How do you know? $\qquad$

Explain how to solve $15 \div 3$ in two different ways. $\qquad$
$\qquad$

What do a rectangle, rhombus, and square have in common? How are they different?

If a pizza had 15 slices and your family ate 9 of them, what fraction of the pizza was left? What fraction of the pizza did your family eat? (Hint: Reduce fractions to simplest form.)

Are the fractions $\frac{1}{6}$ and $\frac{2}{12}$ the same? Why or why not? (Hint: Draw a picture.)

## Problem of the Day September

What is the opposite operation of division? Can you write a division problem and the opposite to that problem?

How many thirds can fit into 2? $\qquad$

On Friday, you read your favorite book for 43 minutes. On Saturday, you read for 39 minutes, and on Sunday, you read for 18 minutes. How many minutes did you read altogether on these three days? Make sure to convert your answer to hours and minutes.

Find and continue the pattern:

| Cookies | 1 | 2 | 3 | 4 | 5 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Amount of Flour | $\frac{1}{6} \operatorname{cup}$ | $\frac{1}{4} \operatorname{cup}$ | $\frac{3}{8} \operatorname{cup}$ | $\frac{1}{2} \operatorname{cup}$ |  |  |

Bedtime is at 8:00 p.m. Your mom said you have 53 minutes until bed. What time is it now?

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When David looked at the clock at lunchtime, the hour hand was over halfway past 12 and the minute hand was two ticks past the 8. What time is lunch?

The area of a square shed is 36 square feet. How long are the sides of the shed? (Hint, remember to find the area of a square, you multiply a side by another side.)

Fill in the missing number: $4.5+$ $\qquad$ $=13$

Compare these two numbers using <, >, or =. 17.1 $\qquad$ 10.7

Continue this counting by $\frac{1}{4}$ S pattern: $\frac{1}{4}, \frac{1}{8}, \frac{1}{12}$,
$\qquad$ , $\qquad$ , $\qquad$ , $\qquad$ , $\qquad$ ,

## Problem of the Day September

What is the distance around this house
(also known as perimeter)?
$10 \frac{1}{2}$ feet

## 120 feet

Circle the number that is not a multiple of 3: 102, 21, 91, 87. Explain how you solved this problem. $\qquad$

What is 67 rounded to the nearest 100 ? What is 67 rounded to the nearest 10? Explain why you chose the answers you did. $\qquad$

Joshua is studying for a math test next week. He wants to practice by completing 100 problems. He completed 13 today and 27 yesterday. He has two more days to study. How many problems should he complete on each of the next two days. (Hint: there may be more than one answer.) $\qquad$

What is 1,000 minus 873 ? How can you prove this? $\qquad$

## Problem of the Day September Answer Key

## Week 1

Day 1: 3; $1 \frac{1}{2}$ plus $1 \frac{1}{2}$ equals 3
Day 2: Take 15 objects and circle three groups; Repeatedly add 3 until you reach 15.
Day 3: They are all quadrilaterals/have four sides. A square's sides are all the same length, a rectangle has two pairs of sides of the same length, and a rhombus' sides are all the same length but don't form 90-degree angles with each other.

Day 4: $\frac{2}{5}$; $\frac{3}{5}$
Day 5: Yes, $1 / 6$ is 2/12 in reduced form.

## Week 2

Day 1: Multiplication; $25 \div 5=5,5 \times 5=25$
Day 2: 6
Day 3: 1 hour and 40 minutes
Day 4: $\frac{5}{8}, \frac{3}{4}$
Day 5: 7:07 p.m.

## Week 3

Day 1: 12:42 p.m.
Day 2: 6 feet
Day 3: 8.5
Day 4: $17.1>10.7$
Day 5: $\frac{1}{16}, \frac{1}{20}, \frac{1}{24}, \frac{1}{28}, \frac{1}{32}$

## Week 4

Day 1: 261 feet
Day 2: 91. A possible answer is to divide each by 3.
Day 3: 100; 70. 100 because 67 is more than halfway to $100 ; 70$ because 67 is more than half-way between 60 and 70.
Day 4: A possible answer is to complete 30 on each, or any two numbers that sum to 60.
Day 5: 127; I can prove it by adding $127+873$ and the sum is 1,000 .

