

Name: _____

Period: _____

Homework #8

Due Friday, December 8th

In a taste test of new ice creams invented at Moo University, 750 freshman preferred Cranberry Bog ice cream, while 1,250 freshmen preferred Coconut Orange ice cream. Complete each statement below using this information.

- The fraction of freshman who preferred Cranberry Big is _____.
- The percent of freshmen who preferred Coconut Dream is _____.
- The ratio of freshmen preferring Coconut Orange to those who preferred Cranberry Bog was _____ to _____.

Students at a middle school are asked to record how they spend their time from midnight on Friday to midnight on Sunday. Carlos records his data on his phone. Use his phone screen for the next problem set.



Activity	Number of Hours
Sleeping	18
Eating	2.5
Sports	8
Internet	2
Watching Television	6
Homework	2
Other	9.5

Decide whether each statement is an accurate description of how Carlos spent his time that weekend. Explain your reasoning.

- Carlos spent one-sixth of his time watching television.
- The ratio of hours spent watching television to hours spent doing chores or homework was 3 to 1.
- Sports, internet, and watching television took about 33% of his time.
- Time spent doing homework was only 20% of the time spent watching television.
- Sleeping, eating, and "other" activities took up 12 hours more than all other activities combined.

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Raina, Amelia, and Krista wanted to find the number of cans of concentrate they would need if they used 128 cans of water. They knew the problem they were trying to solve was $\frac{1}{4} = \frac{x}{128}$. Which of the following strategies would work? Explain.

Raina's Strategy

I was looking for $\frac{1}{4}$ of 128. I took 128 and divided it by 4 to find the value of x.
 $x = 32$

Amelia's Strategy

I wrote a series of equivalent fractions by doubling the numerator and denominator.

$$\frac{1}{4} = \frac{2}{8} = \frac{4}{16} = \frac{8}{32} = \frac{16}{64} = \frac{32}{128} \quad \text{so } x = 32$$

Krista's Strategy

I factored the denominator of the right side of the equation to determine x.

$$\frac{1}{4} = \frac{x}{128} = \frac{1 \cdot 1 \cdot 2}{4 \cdot 4 \cdot 8} \quad \text{so } x = 2$$

For the following exercises, solve each equation.

A. $12.5 = 0.8x$

B. $\frac{x}{18} = 4.5$

C. $\frac{18}{x} = \frac{4.5}{1}$

A fruit bar is 5 inches long. The bar will be split into two pieces. For each situation, find the lengths of the two pieces.

a. One piece is $\frac{3}{10}$ of the whole bar.

b. One piece is 60% of the bar.

c. One piece is 1 inch longer than the other.

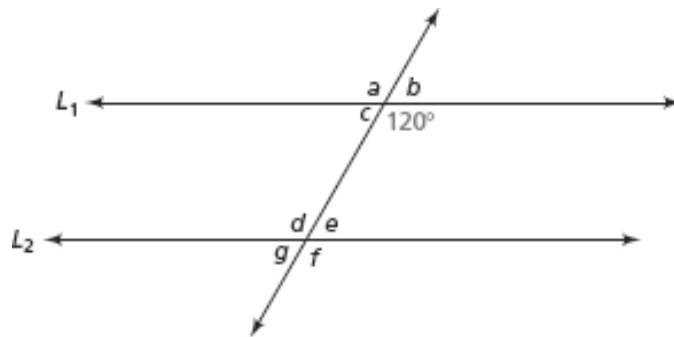
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Spiral Review: The following problems are required! This is the help you remember what we have covered this year!

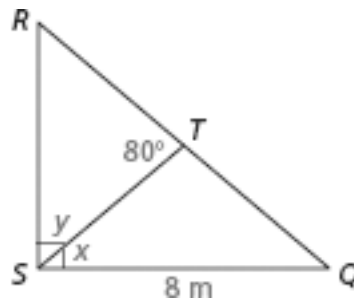
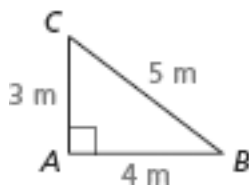
In the figure below, lines L_1 and L_2 are parallel.

- a. Use what you know about parallel lines to find the measures of angles a through g .



- b. List all pairs of *supplementary* angles in the diagram.

The right triangles below are similar.



- a. Find the length of side RS .

- b. Find the length of side RQ .

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A birdwatcher counts and records the number of birds at a bird feeder every morning at 9:00 for several days.

12, 3, 8, 1, 1, 6, 10, 14, 3, 6, 2, 1, 3, 2, 7

a) Make a frequency table for the data.

b) Make a histogram for the above data.

c) Create a stem & leaf plot for the data.

d) Create a box & whisker plot for the data.