

Name: _____

CC2, Class 5, ElShakhs

Weekly Math Homework Packet 9-3 to 9-9

Please have this homework packet out at the beginning of the period.

Homework Score				Assigned	Due Date	Assignment
100%	75%	50%	Missing			
				Tuesday, 9/3	Weds, 9/4	(Classwork – 1-23 to 1-30) Homework – 1-11, 1-18 to 1-20
				Weds, 9/4	Friday 9/6	(Classwork – 1-23 to 1-30) (Classwork 1-41 to 1-44) Homework 1- 21 to 1-22, 1-35, to 1-39
				Friday 9/6	Monday, 9/9	(Classwork 1-41 to 1-44) (Classwork – 1-50 to 1-55) Homework 1-46 to 1-49

Remember – Homework help available at www.cpm.org

Reflections on this week's homework:

Ideas or comments:

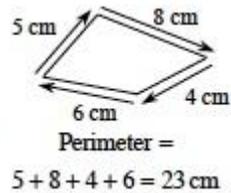
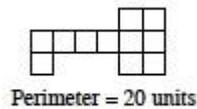


METHODS AND MEANINGS

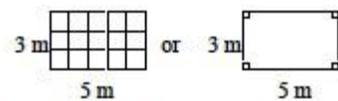
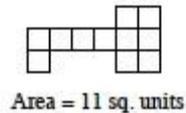
MATH NOTES

• Perimeter and Area

- The **perimeter** of a shape is the total length of the boundary (around the shape) that encloses the interior (inside) region on a flat surface. See the examples below.



- **Area** is a measure of the number of square units needed to cover a region on a flat surface. See the examples below.

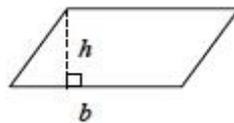


Area = $5 \cdot 3 = 15$ m² (square meters)

- The **area of a rectangle** is found by multiplying the lengths of the base and height. See the examples at right.

$$A = b \cdot h$$

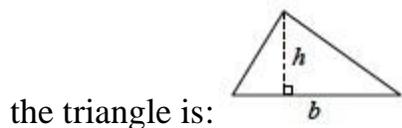
- The **area of a parallelogram** is equal to the area of a rectangle with the same base and height. If the base of the parallelogram is length b and the height is length h ,



then the area of the parallelogram is:

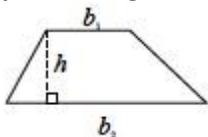
$$A = b \cdot h$$

- The **area of a triangle** is half the area of a parallelogram with the same base and height. If the base of the triangle is length b and the height length h , then the area of



$$A = \frac{1}{2} b \cdot h$$

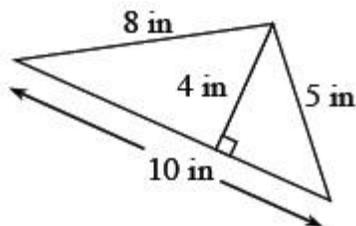
- Finally, the **area of a trapezoid** is found by averaging the two bases and multiplying by the height. If the trapezoid has bases b_1 and b_2 and height h , then the area is:



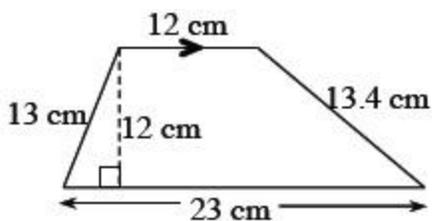
$$A = \frac{1}{2} (b_1 + b_2)h$$



- 1-11.** Find the perimeter and area of each figure below. Review the Math Notes box in this lesson for help. Be sure to include the correct units in your answers.



a.



b.



METHODS AND MEANINGS

MATH NOTES

Mean

- To understand a set of data, you often need to be able to describe the approximate center of that data. One way to do this is to find the **mean** of the data set, which is also called the **arithmetic average**.
- To find the mean of a set of data, add the values of the data elements (numbers) and then divide by the number of items of data. The mean is a useful way to describe the data when the set of data does not contain **outliers**. Outliers are numbers that are much smaller or much larger than most of the other data in the set.
- Suppose the following data set represents the number of home runs hit by the best seven players on a Major League Baseball team during one season:

- 16, 26, 21, 9, 13, 15, and 9.

- The mean is $\frac{16+26+21+9+13+15+9}{7} = \frac{109}{7} \approx 15.57$.
- This number shows that a typical player among the best seven home-run hitters on the team hits about 15 or 16 home runs each season.



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- **1-18.** Thu wants to play "Guess My Number." She states, "When I triple my number and add five, I get twenty-six. What is my number?" What is her number? Show how you know.

- **1-19.** One of the ideas that you have explored in previous courses is how to describe a set of data. One of the ways that you may have seen before is finding an **average** (also called a **mean**). Read the Math Notes box for this lesson to review what a mean is and how to find it. Then find the mean for each set of data below.

a. Jane's quiz scores: 82, 64, 73, 91, 85

a. The number of cats your teammates have as pets: 0, 1, 3, 2

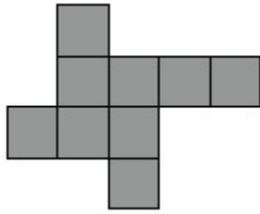
1-20. Julio is an architect who designs skyscrapers. Assume that each story (also called a "floor" or "layer") of a new building is 15 feet high as you help Julio answer the following questions.

a. How high would a two-story building be? What about a 10-story building? What about a 30-story building?

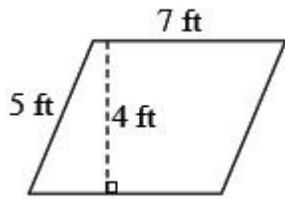
b. Bonus: If Julio had to design the building to be 750 feet tall, how many stories should the building have?

1-21. Which is greater, $\frac{3}{4}$ or $\frac{11}{16}$? How can you be sure?

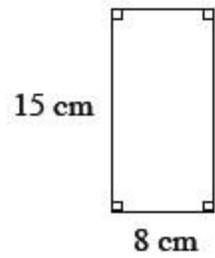
1-22. Find the perimeter and area of each figure below.



a.



b.



c.



METHODS AND MEANINGS

MATH NOTES

Median

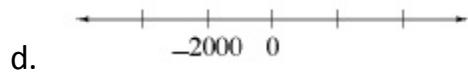
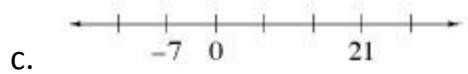
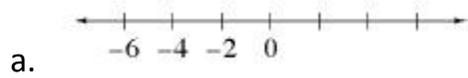
- The mean is a useful way to find the center when data values are close together or are evenly spaced. Another tool, the **median**, also locates the approximate “center” of a set of data in a different way.
- The **median** is the middle number in a set of data *arranged numerically*. If there is an even number of values, the median is the mean of the two middle numbers. The median is more accurate than the mean as a way to find the center when there are outliers in the data set.
- Suppose the following data set represents the number of home runs hit by the best seven players on a Major League Baseball team:
 - 16, 26, 21, 9, 13, 15, and 9.
- In this example, the median is 15. This is because when the data are arranged in order (9, 9, 13, 15, 16, 21, 26), the middle number is 15.
- Mean and median are called **measures of central tendency** because they each describe the “center” of a set of data, but in different ways.



- **1-35.** Read the Math Notes box for this lesson and review the information about how to find the median of a data set. Then find the median for Andy’s test scores: 76, 84, 93, 67, 82, 87, and 76.

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- **1-36.** Use the fact that there are 12 inches in a foot to answer the questions below.
 - a. How many inches tall is a 7-foot basketball player?
 - b. If a yard is 3 feet long, how many inches are in a yard?

1-37. As you can tell from the examples of the number lines below, not all number lines change by one unit from mark to mark. Copy these number lines onto your paper and fill in the missing numbers.



f. **1-38.** At the farmers' market, two pounds of peaches cost \$4.20. How much does one pound cost? How much will five pounds cost? Show all of your work or explain your reasoning.

g. **1-39.** Janice's mother gave her a ten dollar bill to buy five pounds each of bananas and apples at the grocery store. When she got there, she found that bananas were 80¢ per pound and apples were \$1.40 per pound.

a. How much will five pounds of bananas cost?

b. How much will five pounds of apples cost?

c. What will the total cost be?

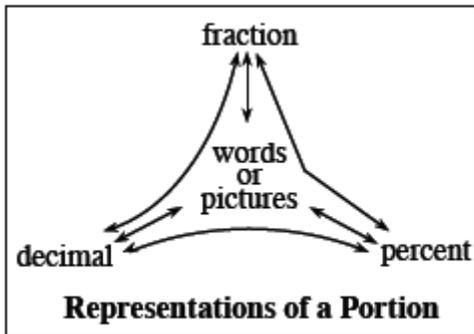
d. Did Janice's mother give her enough money? If so, should she receive any change? If not, how much more money does she need?



METHODS AND MEANINGS

MATH NOTES

Representation of a Portion



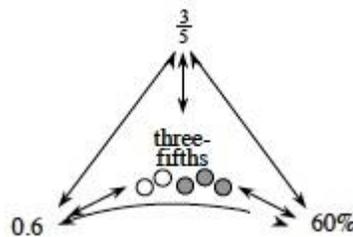
- The portions webdiagram at right illustrates that fractions, decimals, and percents are different ways to represent a portion of a number. Portions can also be represented in words, such as “four-fifths” or “seven-fourths,” or with diagrams such as those shown below. A complete portions web is shown below right.

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$\frac{4}{5}$ of the objects are shaded:

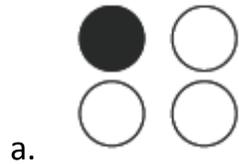


150% of one circle is shaded:





1-46. Look at the representations shown in the Math Notes box for this lesson (“Representations of Portions”). Copy the diagrams below and write a fraction and a percent for the shaded portion of each one.



1-47. Represent each of the fractions below both with a diagram and with words.

a. $\frac{2}{3}$

b. $\frac{6}{9}$

1-48. If five notebooks cost \$5.25, how much is each notebook?

a. How much would three notebooks cost?

1-49. Find the perimeter and area of each figure below.

