

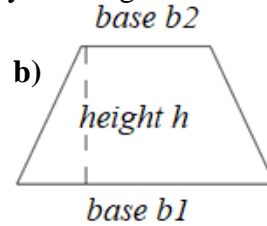
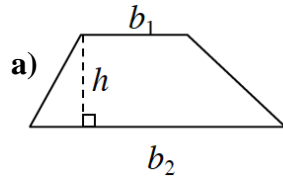
Pre-Algebra Problem Set 3 First Name _____ Last _____

Assigned Thursday 9/19, due Friday 9/27

NO Work Shown, NO Credit Given Period _____

Problems #1-4 can be completed on this paper.

1. For each trapezoid below, form a parallelogram by drawing a second congruent trapezoid.



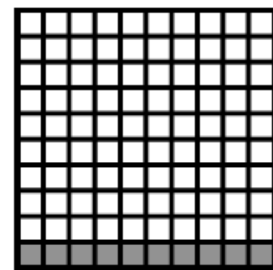
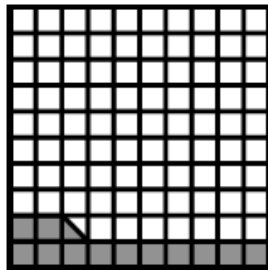
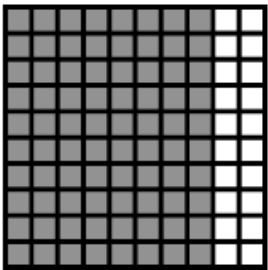
c) What is the area formula of each new parallelogram?

d) What is the area formula of each original trapezoid?

2. Marianna represented several percents as portions of 100 in the pictures below.

a) Write the percent represented in each picture.

b) Write the portion represented in each picture as a fraction in at least two different ways.

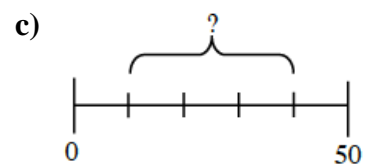
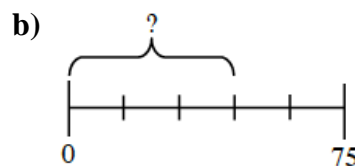
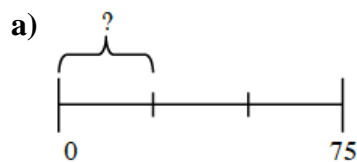


3. Joyce's dad packs her lunch and always packs a yogurt. Joyce knows that there are five yogurts in the refrigerator: one raspberry, two strawberry, one blueberry, and one vanilla. Her dad usually reaches into the refrigerator and randomly grabs a yogurt.

a) Which flavor is she most likely to have in her lunch today?

b) What are her chances of finding a vanilla yogurt in her lunch bag?

4. What is the length of the marked portion of each line segment? Assume that the entire line segment is subdivided into equal sections.



Please show your work for #5-11 on a separate piece of paper, and staple to this homework.

5. Find the mean and median for the lengths of the jumping frogs' bodies shown below (the length are in centimeters): 20.3, 12.5, 7.6, 13.9, 9.2, 21.7, 7.6, 17.5, 15.6, 14.1

6. For each of the following pairs of events, predict which is more likely to happen and explain your reasoning.

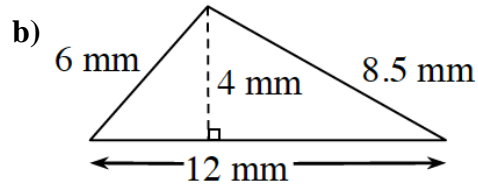
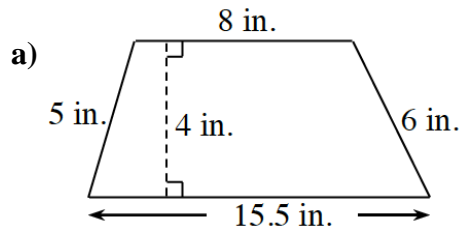
a. Event 1: You will win more than \$1,000,000 in a lottery sometime in your life.

Event 2: You will learn to speak a language that you do not already know.

b. Event 1: Your classmates will all wear the same kind of shoes on the same day.

Event 2: Your classmates will all eat the same thing for lunch on the same day.

7. Find the perimeter and area of each figure below.

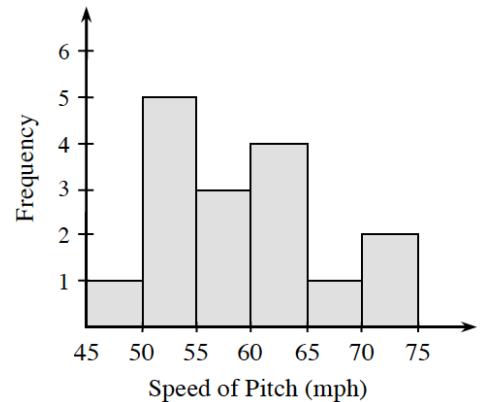


8. Craig is practicing his baseball pitching. He kept track of the speed of each of his throws yesterday, and made the histogram above.

a) Can you tell the speed of Craig's fastest pitch? Explain.

b) Between what speeds does Craig usually pitch?

c) Based on this data, what is the probability that Craig will pitch the ball between 70 and 75 miles per hour? Write your probability as a fraction.



9. a) If five slices of pizza cost \$5.50, how much do two slices cost?

b) Ten slices?

c) Half a slice?

10. Zaria wants you to solve this puzzle: "I am thinking of a number. If you divide my number by 2 and subtract 4, you will get 2. What is my number?" Show how you know your answer is correct.

11. a) What is more likely, landing on an even number or landing on a number greater than 4? Justify your answer with math.

b) What percent chance is there of spinning a 7 or 8?

