

REVIEW – Central Tendency, Ratios, Rates and Proportional Reasoning

Show all your work for the following questions.

1. Calculate the mean, median, mode, and range for the data sets below:

a. 5, 8, 4, 5, 8, 7, 5

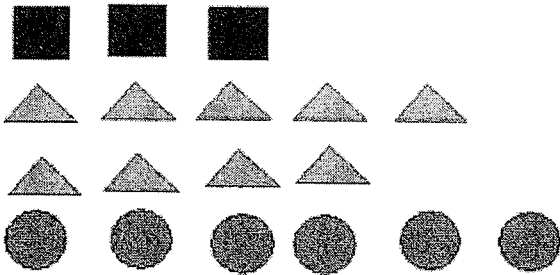
mean _____ median _____ mode _____ range _____

b. 3, 4, 6, 5, 4, 7, 6, 4, 5, 7

mean _____ median _____ mode _____ range _____

2. Write the part to part ratio of ~~7 cats~~ to ~~10 dogs~~ in three different ways.

3. Consider the diagram shown below. State each ratio as an exact count then reduce, IF POSSIBLE.

	Squares to circles
	Circles to triangles
	Squares to all

4. Sara counted 20 vehicles in a parking lot. Of these, five were silver, four were blue, two were red, and one was yellow. (Answer using ratio notation)

- What is the ratio of yellow to red to silver vehicles?
- How many vehicles were NOT blue, red, yellow, or silver?
- What could the ratio 5 to 20 represent?
- What could 5 : 16 represent?
- Express the ratio of silver to total vehicles as a fraction and as a percent.

5. Determine the rate and then also, the unit rate for each situation.

a. Steve runs up 300 steps in 6 minutes.

b. A 4L jug of milk costs \$4.55

c. A jet travels 2184 km in 3.5 hours.

6. Determine the best buy from the options offered.

a. Karl's KrazyMart is selling a case of 24 pop for \$6.99.

Della's Good Deals sells a case of 30 pop for \$8.15.

b. Store A has a pack of 25 pencils on sale for \$6.50 Store B has 20 pencils on sale for \$5.60.

7. Solve each proportion for the unknown value by using the "cross-multiply and divide" strategy.

$\frac{?}{3} = \frac{28}{42}$	$\frac{15}{7} = \frac{225}{?}$	$\frac{9}{72} = \frac{?}{36}$
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8. Set up a proportion for each question. Then solve.

a. Three bars of soap cost \$2.94. What is the cost of 8 bars of soap?

b. A heart beats 80 times in 2 minutes. How many times will it beat in 9 minutes?