Name _____ Units _____ Date _____

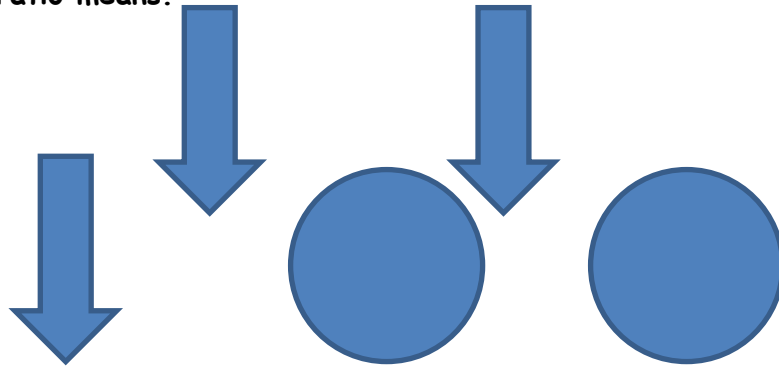# Math 6th: Study Guide Ratios and Rates Unit 7

Directions: Carefully read and follow the directions for each section. Remember to <u>SHOW YOUR</u> <u>WORK</u> and write your answers on the lines provided. Don't forget the correct units!

Write the ratio. Explain what the ratio means.

1.) Arrows to Circles

        Ratio: _____

Explanation:

2.)   The ratio of sugar to flour in a cookie recipe is 3 : 5. The recipe uses 15 cups of flour. How much sugar is needed?

                                                                                2.) _____
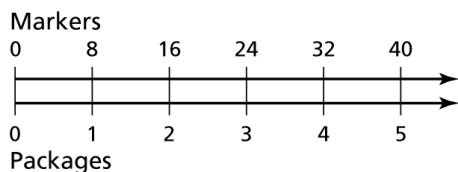
Find the missing values in the ratio table.

3.)

Dogs	4	12	
Cats	7		56

4.)

Pencils	9	27	
Erasers	3		33

Write a rate that represents the situation. Explain what the rate means.

5.)   Markers

```
     0     8    16    24    32    40
     |-----|-----|-----|-----|-----|---->
     |-----|-----|-----|-----|-----|---->
     0     1     2     3     4     5
   Packages
```

Rate: _____

Explanation:

6.) A dog can run at a speed of 11 feet per second on land. At this rate, how far can it run in 8 seconds?

6.) _____

Write a unit rate for the situation.

7.) 15 goals in 5 hours   8.) 1800 calories in 2 sandwiches

7.) _____

8.) _____

9.) Determine which hand soap is the better buy. Explain your reasoning.

Circle the better buy: A   B

Explain:

Hand Soap	A	B
Cost (dollars)	1	6
Fluid ounces	6	45

10.) Which vehicle goes further on one gallon of gas? Explain your reasoning.

Truck	
Gallons used	Distance
2	72
3	108
4	144

Car	
Gallons used	Distance
5	200
6	240
7	280

Circle the vehicle that goes further on one gallon of gas: Truck   Car

Explain:

Write the fraction or mixed number as a percent.

11.) $\frac{3}{25}$ 12.) $2\frac{12}{50}$

11.) _____

12.) _____

Write the percent as a simplified fraction or mixed number.

13.) 352%

14.) 32%

13.) _____

14.) _____

15.) The ratio of males to total students in a mathematics class is 7 to 20.

   a. What fraction of the class is male? _____

   b. What percent is male? _____

   c. How many females are in the class? _____

   d. What fraction of the class is female? _____

   e. What percent is female? _____

Find the percent of the number.

16.) 35.3% of 80

17.) 19% of 30

16.) _____

17.) _____

18.) You answer 95% of the questions correctly on a 60-question test. How many questions do you answer *incorrectly*?

18.) _____

1.) 3:2; 3 arrows for every 2 circles					2.) 9 cups of sugar			

1.) 3:2; 3 arrows for every 2 circles   **2.) 9 cups of sugar**

3.)

Dogs	4	12	**32**
Cats	7	**21**	56

4.)

Pencils	9	27	**99**
Erasers	3	**9**	33

5.) 8:1; 8 markers per package   **6.) 88 feet**   **7.) 3 goals/hour**

8.) 900 calories/sandwich   **9.) B: Smaller unit rate (0.13)**

10.) Truck: Goes 36 miles/gallon   **11.) 12%**   **12.) 224%**

13.) $3\frac{13}{25}$ **14.) $\frac{8}{25}$**   **15a.) $\frac{7}{20}$**   **15b.) 35%**   **15c.) 13**

15d.) $\frac{13}{20}$ **15e.) 65%**   **16.) 28.24**   **17.) 5.7**

18.) 3 questions