

1. Find the Prime Factorization of the number below. Write your answer on the line provided using exponents if needed. Do not use a calculator. **Show your work.**

64 = \_\_\_\_\_

2. Simplify the following problem. Do not use a calculator. **Show your work.**

$$3(15 - 4) + 5(7) - (20 - 18 \div 3^2)$$

Use the **Distributive** property and write as a product **using the GCF**.

3.  $55 + 35 =$  \_\_\_\_\_

4.  $18 + 12 =$  \_\_\_\_\_

It takes 5 months to build 2 playgrounds. Find the unit rates for each and fill in the blanks. You may use a calculator.

5. For **each month** you can make \_\_\_\_\_ **playground**.

6. For **each playground** it takes \_\_\_\_\_ **months**.

Fill in the missing values in the ratio tables below. You may use a calculator

7.

35	7
45	

8.

	27
126	18

9.

21	25
	225

10.

78	
26	19

11. Change the following improper fractions to mixed numbers:  $\frac{73}{7} =$        $\frac{48}{9} =$

12. 7 bags for \$97.16  
Find the price per bag.  
You may use a calc. Show your thinking.

13. Circle the ratios that are equivalent to 3:8

$\frac{25}{32}$        $\frac{33}{80}$        $\frac{27}{72}$        $\frac{21}{56}$

You may use a calculator on problems 14 - 17. Show your thinking!

14.  $\frac{4}{5}$  of the pets had their shots. If there were 6205 pets in the county, how many had their shots?

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15. 984 people arrived early for the game. This is  $\frac{3}{4}$  of the total. What was the total?

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16. Solve this problem using the rate table to the right. Shannon earned \$132.50 for working 5 hours.

- a. How much did Shannon earn per hour?
- b. At this rate, how many hours will she have to work to earn \$980.50?
- c. How much will he earn if she works for 39.5 hours?


17. For every 4 small popcorns sold at the theater there were 3 large sold. Complete the table below and answer the questions.

Small popcorns					
Large popcorns					

- a. For every small popcorn that was sold \_\_\_\_\_ large popcorn(s) were sold.
- b. For each large popcorn that was sold \_\_\_\_\_ small popcorn(s) were sold.
- c. If 68 small popcorns were sold, how many large popcorns were sold? \_\_\_\_\_
- d. If 84 large popcorns were sold, how many small popcorns were sold? \_\_\_\_\_