

Math 6 Study Guide Chapter 7 Test

Name Key

1. A number is divided by 7. The quotient is 11, the remainder is 5. What is the number?

$$7 \times 11 = 77 + 5 = 82$$

2. $64.7 \div 4.1$ is closest to

a) 1.61 b) .161 c) 16.1 d) 15.8

3. Write the prime factorization for 35,000.

$$2^3 \cdot 5^4 \cdot 7$$

$$\begin{array}{r} 2 \overline{) 35000} \\ 2 \overline{) 17500} \\ 2 \overline{) 8750} \\ 5 \overline{) 4375} \\ 5 \overline{) 875} \\ 5 \overline{) 175} \\ 5 \overline{) 35} \\ 7 \overline{) 7} \end{array}$$

Find the quotient to the nearest integer.

4. $-20.66 \div 3.3 = -6 - (6.2606060)$

5. $-85 \div -5 = 17$

6. At the beginning of the day, a stock had a price of \$65.55 per share. Five hours later the value of one share had changed to \$40.00.

a. Write an expression using division that describes the rate of change in the stock price per hour.

$$\frac{65.55 - 40.00}{5} = \frac{25.55}{5} = 5.11 \text{ } \$ - 5.11$$

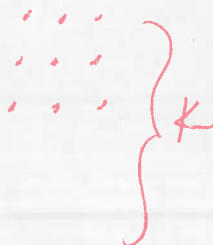
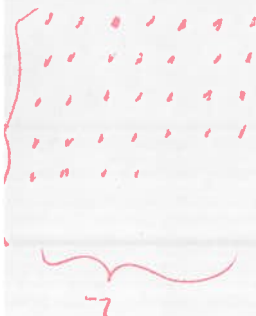
b. Evaluate the expression. Include the rate unit.

$$- \$5.11 \text{ per hour}$$

Draw an array to show the next two numbers are composite.

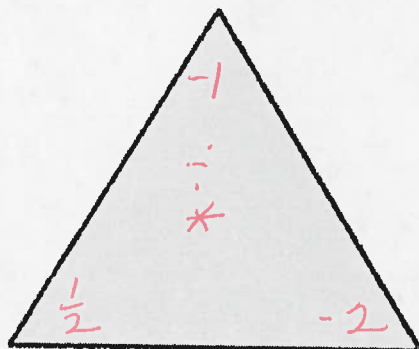
7. 55

8. $3k$, if k is a positive integer



9. Construct a fact triangle for the numbers $\frac{1}{2}$, -2 , -1

CHECK to make sure you have chosen the correct operations (+, -, *, \div) and put the numbers in the correct places.



10. Laura and 5 of her friends went apple picking. At the end of the day, they had 70 apples. How many apples will each person get if they divide the apples evenly? How many apples will be left over?

$$70 \div 6 = 11 \text{ apples each} \\ 4 \text{ left over}$$

11. A 16 - ounce bottle of water costs \$1.15. Approximately what is the cost per ounce?

$$\approx 13.9 \text{¢ or } \$0.14 \text{ per ounce}$$

12. A truck driver drives 65 miles per hour for 9 hours each day. At this rate, how many days will it take him to drive 2,340 miles?

$$65 \times 9 = 585 \text{ miles per day} \\ 2340 \div 585 = 4 \text{ days}$$

13. Identify the dividend, divisor, and quotient. $\frac{x}{12} = 132$

div: x divisor: 12 quotient: 132

14. Tell whether $\frac{x}{3}$ is equivalent to a terminating or a repeating decimal when

- a. $x = 2$ $\frac{2}{3} = \text{repeating}$
b. $x = 3$ $\frac{3}{3} = \text{terminating}$
c. $x = 4$ $\frac{4}{3} = \text{repeating}$

15. Give an example of two fractions that can both be written as a repeating decimal but whose product is a terminating decimal.

$$\frac{3}{7}, \frac{14}{3}$$

Name: _____

key

Study Guide- NO CALCULATOR

1. Is 121 prime or composite?

$$11 \cdot 11 = 121$$

For problems 2-4, divide and give your answer as a mixed number. Make sure you show your work.

- 2.
- $-123 \div 5$

$$-24\frac{3}{5}$$

$$\begin{array}{r} 5 \overline{) -123} \\ \underline{-10} \\ 23 \\ \underline{-25} \\ 3 \end{array}$$

- 3.
- $268 \div 6$

$$44\frac{4}{3} \text{ or } 44\frac{2}{3}$$

$$\begin{array}{r} 44 \text{ r } 4 \\ 6 \overline{) 268} \\ \underline{-24} \\ 28 \\ \underline{-24} \\ 4 \end{array}$$

- 4.
- $932 \div 11$

$$84\frac{8}{11}$$

$$\begin{array}{r} 84 \text{ r } 8 \\ 11 \overline{) 932} \\ \underline{-88} \\ 52 \\ \underline{-44} \\ 8 \end{array}$$

- 5.
- $-315 \div -12$

$$26\frac{3}{12} \text{ or } 26\frac{1}{4}$$

$$\begin{array}{r} 26 \\ -12 \overline{) -315} \\ \underline{24} \\ 75 \\ \underline{-72} \\ 3 \end{array}$$

6. Find the prime factorization of 180

$$\begin{array}{c} \wedge \\ 18 \quad 10 \\ \wedge \quad \wedge \\ 2 \quad 9 \quad 2 \quad 5 \\ \wedge \\ 3 \quad 3 \end{array}$$

$$\boxed{2^2 \cdot 3^2 \cdot 5}$$