Review for:
Cumulative Test 3&4

Name Key
Date _____

Perform Operations with Decimals **(3.3, 3.4, 3.6, 3.7 & 3.8)**

Evaluate each expression for the given value of x.

1. $x \cdot 10^5$ when $x = 0.13700$

1. 13,700

2. $x \div 4.5$ when $x = 50.9$

$$4.5\overline{)50.9} = 11.3\overline{1}$$

-45

59

-45

140

-135

5

2. $11.3\overline{1}$

3. $12.107 - x$ when $x = 3.63$

$$\begin{array}{r} 12.107 \\ -\ 3.63 \\ \hline 8.477 \end{array}$$

3. 8.477

4. $3x + 0.214$ when $x = 4.05$

$$\begin{array}{r} 4.05 \\ \times\ \ 3 \\ \hline 12.15 \end{array} \qquad \begin{array}{r} 12.15 \\ +\ 0.214 \\ \hline 12.364 \end{array}$$

4. 12.364

Problem Solve Using Decimals **(3.3, 3.4, 3.6, 3.7, 3.8, 3.9 & 3.10)**

Answer each question. Justify your answers.

5. Jackson purchased 3.2 pounds of apples. The price for apples is \$0.30 per pound. What was the total cost of Jackson's apples?

$$\begin{array}{r} 3.2 \\ \times\ 0.30 \\ \hline 0.960 \end{array}$$

5. \$0.96

6. Use the table to answer the questions.

World Consumption of Chocolate (per person)

Country	2008 (kilograms)	2012 (kilograms)
Germany	11.39	8.193
United Kingdom	10.31	9.462
Australia	5.96	5.9
United States	5.09	5.5
Switzerland	10.77	11.9
Belgium	6.8	8.3
Denmark	8.57	7.0
Norway	9.8	8.0

1 kg ≅ 2.2 lbs

a. How many more kilograms of chocolate did people consume (eat) in Germany in 2008 than in Belgium the same year?

subtract

$$\begin{array}{r} {}^{0}{}^{1}1\text{k}.{}^{1}39 \\ -\quad 6.8 \\ \hline 4.59 \end{array}$$

a. 4.59 kilograms of chocolate

b. For the countries listed, how many kilograms did people eat in 2008?

$$\begin{array}{r} {}^{1}{}^{2}{}^{3}11.39 \\ 10.31 \\ 5.96 \\ 5.09 \\ 10.77 \\ \hline 43.52 \end{array} \qquad \begin{array}{r} {}^{2}6.8 \\ 8.57 \\ 9.8 \\ \hline 25.17 \end{array} \qquad \begin{array}{r} 43.52 \\ +25.17 \\ \hline 68.69 \end{array}$$

b. 68.69 kilograms

c. For the countries listed, how many kilograms did people eat in ~~2010?~~ 2012

$$\begin{array}{r} {}^{2}8.193 \\ 9.462 \\ 5.9 \\ {}^{3}5.5 \\ 11.9 \\ \hline 40.955 \end{array} \qquad \begin{array}{r} 8.3 \\ +\,7.0 \\ 8.0 \\ \hline 23.3 \end{array} \qquad \begin{array}{r} {}^{4}0.955 \\ 23.3 \\ \hline 64.255 \end{array}$$

c. 64.255 kilograms

Solve the equation.

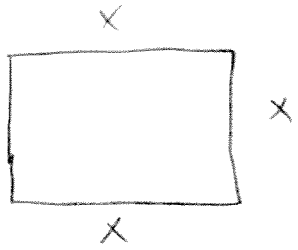
7. $75.06 = x + 39.6$

$$\begin{array}{r} {}^{6}{}^{1}75.06 = x + 39.6 \\ -39.6 \quad -39.6 \\ \hline 35.46 = x \end{array}$$

7. 35.46

8. **Multiple Choice.** The distance around a square rug is 12.4 feet.
Which of the following equations finds the length of each side of the rug? ***Circle the best answer.***

$\frac{4x}{4} = \frac{12.4}{4}$



A. $12.4x = 4$

B. $4x = 12.4$

C. $x \div 4 = 12.4$

D. $12.4 - x = 4$

9. Solve the equation you chose in problem #8.

$\frac{4x}{4} = \frac{12.4}{4}$

$4\overline{)12.4}$ → 3.1, 12, 4

9. 3.1 feet

Use Divisibility Rules to Factor **(4.1, 4.2, & 4.3)**

10. Write the divisibility rules for:

2– even

3– sum of digits, ÷ by 3

4– last 2 digits, ÷ by 4

5– ends in zero or five

6– ÷ by 2 and 3

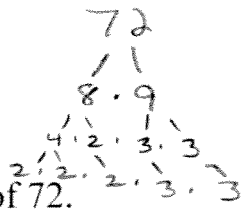
9– sum of digits ÷ by 9

10– ends in zero

Complete the table. Write *yes* if divisible by the given number and *no* if not.

	2	3	4	5	6	9	10
273=12	No	Yes	No	No	No	No	No
405=9	No	Yes	No	Yes	No	Yes	No

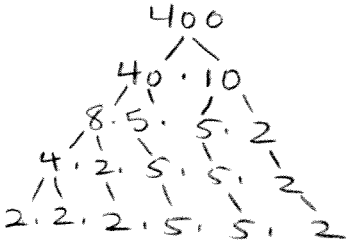
Prime factorization.



11. *Circle* the equation that correctly shows the prime factorization of 72.

A. $72 = 2^3 \cdot 3^2$ B. $72 = 8 \cdot 3^2$ not prime C. $72 = 2^3 \cdot 9$ not prime

12. Write the prime factorization for the number 400.



12. $2^4 \cdot 5^2$

Convert and Compare Using Fractions & Decimals (4.4 – 4.7)

Write the decimal as a fraction or mixed number in simplest form.

13. 0.46 $\frac{46}{100} \div \frac{2}{2} = \frac{23}{50}$ 13. $\frac{23}{50}$

Write the fraction or mixed number as a decimal.

14. $8\frac{5}{8}$

$$\begin{array}{r} .625 \\ 8\overline{)5.000} \\ -48\downarrow \\ \hline 20 \\ -16\downarrow \\ \hline 40 \end{array}$$

14. 8.625

Write the improper fraction as a mixed number.

15. $\frac{55}{7}$

$$\begin{array}{r} 7 \\ 7\overline{)55} \\ -49 \\ \hline 6 \end{array}$$

15. $7\frac{6}{7}$

Write the fraction in simplest form.

16. $\frac{24}{36} \div \frac{12}{12} = \frac{2}{3}$

16. $\frac{2}{3}$

Multiple Choice: Circle the correct answer.

17. Which fraction is equivalent to $\frac{12}{28}$?

A. $\frac{2}{7} \cdot \frac{6}{6} = \frac{12}{42}$

B. $\frac{1}{2} \cdot \frac{12}{12} = \frac{12}{24}$

C. $\frac{12}{35} \cdot \frac{1}{1} = \frac{12}{35}$

D. $\frac{9}{21} = \frac{12}{28}$

$$\begin{array}{r} 7 \\ 28 \\ \times\ 9 \\ \hline 252 \end{array} = \frac{21}{252} \qquad \begin{array}{r} 21 \\ \times\ 12 \\ \hline 42 \\ 21 \\ \hline 252 \end{array}$$

Order the numbers from least to greatest. Show work to justify your answer.

18. $\frac{2}{7}$, 0.62, $\frac{1}{5} = \frac{2}{10} = 0.20$

18. $\frac{1}{5}$, $\frac{2}{7}$, 0.62

$$7\overline{)2.00} = 0.28\ldots \quad -14 \quad 60 \quad -56 \quad 4$$

19. $\frac{15}{4}$, $2\frac{3}{5}$, $\frac{11}{3}$

$3\frac{3}{4}$, $3\frac{2}{3}$

3.75 $3.6\overline{6}$

19. $2\frac{3}{5}$, $3\frac{2}{3}$, $3\frac{3}{4}$