Math Chapter 3 REVIEW

NAME Mrs. C

Be sure to show all of your work and check your answers.

Evaluate each expression. Show all your work on this page.

1. $6.32 - 2.046$

Subtracting w/decimals
line up decimal point

$$\begin{array}{r} 6.\overset{2}{3}\overset{1}{2}0 \\ -\ 2.046 \\ \hline 4.274 \end{array}$$

2. $2.31 \bullet 10^3$

multiplying by power of 10
move decimal right
- 3 places (exponent)

2.310 = 2,310

3. $0.564 \div 4$

dividing decimal by whole #
move it on up

$$\begin{array}{r} 0.141 \\ 4\overline{)0.564} \\ -4\downarrow \\ \hline 16 \\ 16 \\ \hline 04 \end{array}$$

4. $59.6 \div 0.4$

÷ by decimal
move it on over

$$\begin{array}{r} 149. \\ 0.4\overline{)59.6}\uparrow \\ -4\downarrow \\ \hline 19 \\ -16 \\ \hline 36 \end{array}$$

5. $2.071 \bullet 0.5$

multiply decimals
line up digits

$$\begin{array}{r} 2.071 \quad (3) \\ \times\ 0.5 \quad (1) \\ \hline 1.0355 \end{array}$$

4 total decimal places

Find equivalent measures. (You may use your metric chart.)

6. Which measures are equivalent to 93 meters? Circle **ALL** that apply.

a. 930 cm = 9.30 m
b. 0.093 km = 93 m
c. 93,000 mm = 93 m
d. 9.3 km = 9,300 m
e. 9,300 cm = 93 m

Kilo | Hecto | Deka | Unit (meter) | Deci | Centi | Milli

7. Fill in the blank with the equivalent value to 45 meters.

45m = 0.045km

45 m = 4,500cm

45m = 45,000mm

0.045

45

45

Evaluate each expression for the given values of *x*.

8. $0.564 \div x$ when $x = 2$

÷ decimal by whole # move it on up

$$2\overline{)0.564} = 0.282$$

9. $x + 3.7$ when $x = 0.0853$

add decimals
line up decimals

$$3.7000 + 0.0853 = 3.7853$$

10. $0.12 \div x$ when $x = 0.3$

÷ by decimal move it on over

$$0.3\overline{)0.12} = 0.4$$

Problem Solving Using Decimals

Answer each question. Prove Justify your answer by showing your work.

11. Marion wants to ride her bike 15 miles. If she has already ridden 6.75 miles, how far does she still need to ride?

$6.75 + f = 15$
already ridden; far left to go; total

$6.75 + f = 15.00$
-6.75

8.25 miles

12. Oranges are on sale at the store for $ 1.89 per pound. What is the cost for 3 pounds of oranges?

$\$1.89 \times 3 = \$5.67$ for 3 pounds

13. Reggie and his 2 friends went to the Lied Center. Their total bill was $ 51.15. How much does each person owe?

3 people total

$\$17.05$ each

$$3\overline{)51.15} = 17.05$$

14. Mrs. Beran wants to take a trip from Lincoln, NE to Kansas City, MO. The trip is 231 miles. She is planning to drive, her car averages 29.5 miles per gallon of gas. Will one full tank (9.1 gallons) be enough for the trip?

Show your work to justify your answer.

$$\begin{array}{r} {}^{8}\,{}^{4} \\ 29.5 \\ \times\ \ 9.1 \\ \hline 295 \\ 26550 \\ \hline 268.45 \end{array}$$

She can go 268.45 miles with one tank.

Yes, one tank is enough

15. Holly made an error when she said the solution to the equation $\frac{x}{24} = 8$ is x = 3.

Explain Holly's error and solve the problem correctly.

$\frac{24x}{24} = 8 \cdot 24$

$3 \div 24 \neq 8$

$24 \div 3 = 8$

$$\begin{array}{r} {}^{3} \\ 24 \\ \times\ \ 8 \\ \hline x = 192 \end{array}$$

She did $24 \div x$ not $x \div 24$

16. On Halloween, the trick-or-treaters collected 127 candy bars. The 23 children decided to share them equally. How many **candy bars** will each child get to have? *Yummy!!*

$$\begin{array}{r} 5 \\ 23\overline{)127} \\ 115 \\ \hline 12 \end{array}$$

Each child will get 5 candy bars

Solve Decimal Equations. Justify your answer by showing your work!

17. $\frac{100x}{100} = 9.7 \cdot 100$ $x =$ 970

power of 10's trick

9.7 →

18. $\frac{6x}{6} = \frac{48.24}{6}$ $x =$ 8.04

$$\begin{array}{r} 8.04 \\ 6\overline{)48.24} \\ -48\downarrow \\ \hline 02\downarrow \\ 0 \\ \hline 24 \end{array}$$

Move it on up

19. $x + 7.38 = 12.95$ $x =$ 5.57

$-7.38 \quad -7.38$

5.57

line up decimals

20. $8.42 = x - 3.9$ $x =$ 12.32

$+3.90 \quad +3.9$

12.32

line up decimals