Chapter Practice

Chapter 1

For Exercises 1-13, choose the correct letter.

1. Compare the quantities in Column A and Column B.

Column A

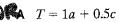
Column B

the reciprocal of 2

the opposite of 2

- A The quantity in Column A is greater.
- B The quantity in Column B is greater.
- C The two quantities are equal.
- D The relationship cannot be determined on the basis of the information supplied.
- 2. The total cost for bus tickets for a family equals the number of adults at \$1.00 each plus the number of children at \$.50 each. Which equation could be used to model this?





B
$$c = 1a + 0.5c$$

C
$$T = c(a + 0.5)$$

D
$$c = a(1 + 0.5c)$$

$$T = 1.5a + c$$

3. To simplify $15 + 5(12 \div 4) \cdot 2$, you should first calculate which of the following?



B
$$12 \div 4$$

4. Compare the quantities in Column A and Column B.



Column A

Column B

$$3-\left(\frac{2}{3}\cdot 6\right)$$

$$\left(3-\frac{2}{3}\right)\cdot 6$$

- A The quantity in Column A is greater.
- B The quantity in Column B is greater.
- C The two quantities are equal.
- D The relationship cannot be determined on the basis of the information supplied.



.

- **C** 8



E none of the above

6. The opposite of -12 is which of the following?

A
$$-21$$

c
$$\frac{1}{12}$$

$$D = \frac{1}{12}$$

7. Simplify $(-4)^3$.

A
$$-12$$

C -64

8. Which of the following is equivalent to $x \div y$?

$$\mathbf{A} \quad \frac{1}{x} - y$$

$$\mathbf{B} \quad x \cdot \frac{1}{y}$$

$$c \frac{y}{x}$$

$$D x - \frac{1}{y}$$

E none of the above

9. Which of the following is true?

A
$$\frac{1}{4} < \frac{1}{3}$$

B
$$-\frac{1}{2} > -\frac{1}{4}$$

c
$$-\frac{1}{4} > \frac{1}{3}$$

D
$$\frac{1}{2} < -\frac{1}{3}$$

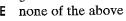
10. Simplify |17.3 - 22.7|.

$$D - 15.4$$

11. Which of the following is an irrational number?

A
$$\sqrt{2}$$

$$c \frac{1}{3}$$





12. The Wagners rented a new release and 2 children's movies. How much did they spend altogether?

Children's	\$0.99
New Releases	\$2.49
Other	\$1.99

- **A** \$3.97
- **B** \$5.47
- C \$4.47
- **D** \$6.47
- **13.** If x is a real number, then which statement about 3x must be true?
- 1
- A 3x is three units more than x.
- **B** 3x is greater than x.
- C 3x is a real number.
- **D** 3x cannot equal zero.
- For Exercises 14-21, write your answer.
- **14.** Evaluate $6a + 12 \div 3a$ for a = 2.
- 14
- 15. Draw a scatter plot for the price of a t-shirt and the number of t-shirts a store might sell each day. Have the x-axis range from \$0 to \$50 in increments of \$5, and the y-axis range from 0 to 100.
- **16.** Evaluate $\frac{d^3}{d+4}$ for d=4.
- **17.** Simplify -17 (-26).
- **18.** Evaluate $\frac{-a}{3} + 2ab$ for a = -6 and b = 4.
- 19. If you increase the product of -4 and -3 by 15 and divide the result by the product of 3 and -1, what additional amount do you need to add to the quotient to have a final sum of 0?

9

20. Estimate the cost of the items in the grocery list to the nearest dollar. Explain how you used the Commutative and Associative Properties to make your estimate.

Item	Price
milk	\$1.29
eggs	\$1.09
juice	\$2.69
bread	\$1.49
cookies	\$2.09
cheese	\$1.89
crackers	\$1.49
applesauce	\$1.19
hot dogs	\$2.89
pickles	\$1.79

\$17.00

21.

Years Employed	Salary (\$)
3	24,000
3	25,000
4	26,000
5	28,000
5	29,000
7	30,000
9	33,000
10	34,000
12	40,000

- **a.** Using the data in the table, draw a scatter plot.
- b. What type of correlation is there between the two data sets? Fos. Coyfela
- c. Predict the salary of an employee who has worked 6 yr.

\$29,000