

Chapter 7 Practice test

Write the correct answer in the blank at the right of each question.

- Which expression is equivalent to $\frac{1}{4}(4 + 9)$?

| | | |
|--|--|----------|
| A. $\frac{1}{4}(13)$ | C. $\frac{1}{4}(4) + \frac{1}{4}(9)$ | |
| B. $(\frac{1}{4} + 13) \cdot (\frac{1}{4} + 13)$ | D. $(\frac{1}{4} + 4) \cdot (\frac{1}{4} + 9)$ | 1. _____ |

- $-\frac{2}{5}(15 - 5)$ is equivalent to which value?

| | | | | |
|-------|-------|------|------|----------|
| F. -6 | G. -4 | H. 2 | J. 8 | 2. _____ |
|-------|-------|------|------|----------|

- Which expression has the same value as $-4(-5 + x)$?

| | | |
|---------------------|---------------------------------|----------|
| A. $-4(-5) + (-4)x$ | C. $(-4 - 5) \cdot (-4 + (-x))$ | |
| B. $-4(5) - 4x$ | D. $(4 - 5) \cdot (-4 - x)$ | 3. _____ |

- Which of the following expressions can be written as $\frac{1}{6}(x + y)$?

| | | |
|------------------------------------|------------------------------------|----------|
| F. $\frac{1}{6}xy$ | H. $\frac{x}{6} \cdot \frac{y}{6}$ | |
| G. $\frac{1}{6}xy + \frac{1}{6}yx$ | J. $\frac{1}{6}x + \frac{1}{6}y$ | 4. _____ |

- Admission to an art museum is \$12 for students. Which expression can be used to mentally compute the total cost of admission tickets for 60 students?

| | | |
|-------------------------------|------------------|----------|
| A. $60(10 + 2)$ | C. $6(12 + 10)$ | |
| B. $12 \cdot 2 + 60 \cdot 10$ | D. $10(30 + 30)$ | 5. _____ |

- Which expression has a coefficient of 0.5?

| | | |
|--------------------|---------------|----------|
| F. $-0.5x$ | H. $4 + 0.5x$ | |
| G. $-0.5x + 0.25x$ | J. $4 + 0.5$ | 6. _____ |

- Which of the following expressions correctly combines like terms?

| | |
|----------------------------------|----------|
| A. $4x + 7 + 2x - 4y = 6x + 3y$ | |
| B. $2x + 7y + 2x - 4y = 4x + 3y$ | |
| C. $2x + 7y + 2x - 4 = 4x + 3y$ | |
| D. $4x + 7y + 2x + 4y = 6x + 3y$ | 7. _____ |

8. Mateo and Haley both collect coins. Mateo has 8 more coins in her collection than Haley. Write an expression that represents the total number of coins in both collections? 8. _____
9. Bradley rents a fishing boat for the day. The total cost for gasoline is represented by the expression $3.25m + 15$. What is the constant in the expression? 9. _____
10. A triangle has side lengths of $(4x - 10)$ units, $(2x + 6)$ units, and $5x$ units. What is the perimeter of the triangle? 10. _____
11. The acute angle measures of a triangle are $(x + 25)^\circ$, $(x - 5)^\circ$, and $(2x - 40)^\circ$. What are the angle measures of the triangle? 11. _____
12. What is the GCF of $100xyz$ and $25xz$? 12. _____
13. Which of the following expressions cannot be factored?
 A. $\frac{1}{2}xy + x$ C. $\frac{x}{4} + \frac{y}{2}$
 B. $4x + y$ D. $4xy + 4$ 13. _____
14. The expression $(2.2x + 8)$ represents the number of miles Trent jogged during a race, and $5x$ represents the number of miles that Ling jogged during the same race, in x hours. Write an expression to show how many more miles Ling jogged than Trent. 14. _____
15. The area of a rectangular hot tub cover is $(8x - 2)$ square units. What are possible dimensions of the hot tub cover? 15. _____