

CH 6 STEAM REVIEW

Multiple Choice

Indicate the answer choice that best completes the statement or answers the question.

___ 1. What is $7 \times 7 \times 7$ written using an exponent?

- a. 3^7 b. 343
c. 7×3 d. 7^3

What is the value of each expression?

___ 2. $11 \times 12 + 3^3 \div 3$

- a. 141 b. 135
c. 53 d. 47

___ 3. $(2^5 - 4) - 3 \times (2 + 1)$

- a. 7 b. 19
c. 51 d. 75

___ 4. A theater charges \$9.50 for adults and \$6 for children. Which expression shows the total cost of buying 3 adult tickets and 2 children's tickets?

- a. $\$9.50 \times \$6 + 3 \times 2$ b. $\$9.50 \times 2 + \6×3
c. $\$9.50 + \$6 \times 2 \times 3$ d. $\$9.50 \times 3 + \6×2

___ 5. Jamie has saved \$42 of her allowance money to buy books. If she buys 5 books at d dollars per book, she will have $42 - 5d$ of her allowance left. How much does she have left if the books cost \$3.50 each?

- a. \$17.50 b. \$24.50
c. \$33.50 d. \$37

Which is the correct algebraic expression for each phrase?

___ 6. 15 miles less than Devra biked

- a. $d + 15$ b. $d - 15$
c. $15 - d$ d. $15 + d$

___ 7. one half the number of quarters Diane has

- a. $2d$ b. $d - 2$
c. $2 \div d$ d. $d \div 2$

___ 8. Sergei caught 4 striped fish. Each one weighed the same number of pounds. Then he caught another fish that weighed 8 pounds. Which expression represents the total weight of the fish that Sergei caught?

- a. $4 + 8 + p$ b. $4 + 8p$
c. $4p + 8$ d. $4p + 8p$

___ 9. Which property is illustrated by the statement $(3 \times 6) \times 4 = 3 \times (6 \times 4)$?

- a. Associative b. Identity
c. Distributive d. Commutative

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Numeric Response

Enter the appropriate value to answer the question or solve the problem.

10. Evaluate $hj - h$ if $h = 4$ and $j = 6$.

Subjective Short Answer

Use the Distributive Property to rewrite each expression.

11. $3(x + 12)$

12. $5(8 + r)$

Determine whether the two expressions are equivalent. If so, tell what property is applied. If not, explain why.

13. $17 + 12$ and $12 + 17$

Simplify each expression.

14. $4(8x + 3y)$

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15. Six friends went to a baseball game. The price of admission per person was $\$x$. Three of the friends bought a hot dog for $\$3$. Write and simplify an expression that represents the total cost.

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Answer Key

1. d

2. a

3. b

4. d

5. b

6. b

7. d

8. c

9. a

10. 20

11. $3x + 36$

12. $40 + 5r$

13. yes; Commutative

14. $32x + 12y$

15. $3(x + 3) + 3x$; $\$6x + \9