

## Key Concept and Vocabulary

### Order of Operations

1. Perform operations in parentheses.
2. Multiply and divide from left to right.
3. Add and subtract from left to right.

Simplify  $5 + 3 \times 6 - 4$ .

$$\begin{aligned} 5 + 3 \times 6 - 4 &= 5 + 18 - 4 \\ &= 23 - 4 \\ &= 19 \end{aligned}$$



## Skill Examples

1.  $16 + 8 \div 4 = 16 + 2 = 18$
2.  $3 \times 5 - 3 = 15 - 3 = 12$
3.  $2 \times (3 - 1) = 2 \times 2 = 4$
4.  $7 \times (16 \div 8) = 7 \times 2 = 14$
5.  $4 + (8 - 6 \div 3) = 4 + (8 - 2) = 4 + 6 = 10$

## Application Example

6. You buy 3 packs of trading cards. Each pack has 12 cards. You give 4 trading cards to your friend. Use the expression  $3 \times 12 - 4$  to find how many trading cards you have now.

$$\begin{aligned} 3 \times 12 - 4 &= 36 - 4 \\ &= 32 \end{aligned}$$

• You have 32 trading cards.



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Evaluate the expression.

- |                                |                                 |                                    |
|--------------------------------|---------------------------------|------------------------------------|
| 7. $8 - 6 \div 2 =$ _____      | 8. $3 \times 5 + 2 =$ _____     | 9. $20 \div 10 \times 2 =$ _____   |
| 10. $10 \times 4 - 3 =$ _____  | 11. $5 + 3 - 18 \div 3 =$ _____ | 12. $28 \div (25 - 18) =$ _____    |
| 13. $22 \div (14 - 3) =$ _____ | 14. $(18 - 4) \div 2 =$ _____   | 15. $15 - (4 + 15 \div 3) =$ _____ |

Insert parentheses to make the statement true.

- |                         |                                  |                               |
|-------------------------|----------------------------------|-------------------------------|
| 16. $36 \div 6 - 2 = 9$ | 17. $24 \div 2 \times 4 + 5 = 8$ | 18. $9 + 4 \times 8 - 6 = 17$ |
|-------------------------|----------------------------------|-------------------------------|

19. **SOCKS** You order 12 pairs of socks that each cost \$2. The order has a \$7 shipping fee.
  - a. Use the expression  $12 \times 2 + 7$  to find how much you spend on the order. \_\_\_\_\_
  - b. Each pair of socks is discounted \$0.50. Use the expression  $12 \times (2 - 0.5) + 7$  to find how much you spend on the order when the discount is applied. \_\_\_\_\_