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 $5 + 3 \times 6 - 4$.

$$5 + 3 \times 6 - 4 = 5 + 18 - 4$$

= $23 - 4$



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.

$$3 \times 12 - 4 = 36 - 4$$

= 32

: 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.** $28 \div (25-18) =$ _____

12.
$$28 \div (25 - 18) =$$

14.
$$(18-4) \div 2 =$$

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.