8-2

Order of Operations

If you do not use the proper order of operations, you will not get the correct answer.

Evaluate $2^3 \div 2 + 3 \times 6 - (1 \times 5)$.

Step 1. Do the operations inside the parentheses.

$$(1 \times 5) = 5$$

 $2^3 \div 2 + 3 \times 6 - 5$

Step 3. Multiply and divide in order from left to right.

$$8 \div 2 = 4$$
 and $3 \times 6 = 18$
 $4 + 18 - 5$

Step 2. Evaluate any terms with exponents.

$$2^3 = 8$$

8 ÷ 2 + 3 × 6 - 5

Step 4. Add and subtract in order from left to right.

$$4 + 18 = 22$$

 $22 - 5 = 17$
So, $2^3 \div 2 + 3 \times 6 - (1 \times 5) = 17$

Write which operation should be done first.

2.
$$13 - 1 + 4 \div 2$$

3.
$$5 \times (7-2) + 1$$

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 4. $(19+23) - (4 \times 5)$

For questions **5** through **8**, evaluate the expression for x = 6 and y = 17.

5.
$$4x + 5y$$
 6. $2x + (20 - y)$

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7.
$$x \div 3 + y$$

8.
$$4y \div 2 + (8x + 10)$$

- 9. Patty made \$34 baby sitting on each of 3 weekends. If she spent \$50 on gifts for her family, how much money does she have left?
- **10.** Carlos solved $20 (2 \times 6) + 8 \div 4 = 29$. Is this the correct answer?