

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 2. Evaluate any terms with exponents.

$$2^3 = 8$$

$$8 \div 2 + 3 \times 6 - 5$$

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

$$8 \div 2 = 4 \text{ and } 3 \times 6 = 18$$

$$4 + 18 - 5$$

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.

1. $6 + 3 \times 2$ _____

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

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

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

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

5. $4x + 5y$ _____

6. $2x + (20 - y)$ _____

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?

Name _____

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Use the order of operations to evaluate each expression.

1. $4 \times 4 + 3 =$ _____ 2. $3 + 6 \times 2 \div 3 =$ _____

3. $24 - (8 \div 2) + 6 =$ _____ 4. $(15 - 11) \times (25 \div 5) =$ _____

5. $26 - 4 \times 5 + 2 =$ _____ 6. $15 \times (7 - 7) + (5 \times 2) =$ _____

7. $(8 \div 4) \times (7 \times 0) =$ _____ 8. $5 \times (6 - 3) + 10 \div (8 - 3) =$ _____

9. Which is a true statement, $5 \times 4 + 1 = 25$ or $3 + 7 \times 2 = 17$?
Explain your answer.

Insert parentheses to make each statement true.

10. $25 \div 5 - 4 = 25$ _____

11. $7 \times 4 - 4 \div 2 = 26$ _____

12. $3 + 5 \times 2 - 10 = 6$ _____

13. Insert parentheses in the expression
 $6 + 10 \times 2$ so that:

a. the expression equals 32. _____

b. the expression equals $(12 + 1) \times 2$. _____

14. Solve $(25 - 7) \times 2 \div 4 + 2$.

A 18 B 11 C 6 D 5

15. Write two order-of-operation problems. Then trade with a classmate and solve the problems.
