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.

\[
(1 \times 5) = 5
\]
\[
2^3 = 8
\]

\[
2^3 \div 2 + 3 \times 6 - 5
\]
\[
8 \div 2 + 3 \times 6 - 5
\]

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

\[
8 \div 2 = 4 \text{ and } 3 \times 6 = 18
\]
\[
4 + 18 = 22
\]
\[
22 - 5 = 17
\]

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

**Step 2.** Evaluate any terms with exponents.

\[
2^3 = 8
\]
\[
8 \div 2 + 3 \times 6 - 5
\]

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

\[
4 + 18 = 22
\]
\[
22 - 5 = 17
\]

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?