

**Order of Operations**

Jun 19-4:14 PM

### Why is Order Important?

Re-arrange the events below.

Why is order important when solving mathematical equations?

- Get out of bed
- Shower
- Get dressed
- Go to school

Mar 19-7:45 AM

Let's Review the Order of Operations...

P - Parentheses

E - Exponents  $3^2 = 3 \cdot 3 = 9$

M - Multiply } Work left to right

D - Divide }

A - Add } Work left to right

S - Subtract }

Jun 29-5:34 PM

What is the first step to simplify this expression?

$$9 + 4 \times 13 - 2^2$$

$$9 + (4 \times 13) - 4$$

$$9 + 52 - 4$$

(57)

$-2^2$   
 $(-2)^2$   
 $(-2)^2$

Nov 6-2:08 PM

What is the first step to simplify this expression?

$$(70 \div 7 + 5) - 12$$

$$(10 + 5) - 12$$

$$15 - 12 = (3)$$

Nov 6-2:08 PM

Simplify the expression below:

$$-7 \times 5 + 6 \div (-3)$$

$$-7 \times 5 + (-2)$$

$$-7 \times 5 - 2$$

$$-35 - 2 = (-37)$$

Nov 6-2:15 PM

Simplify the expression below:

$$(20 \div -10 \times 2) + 5^2$$

$$(-2 \times 2) + 5^2$$

$$-4 + 25 = \textcircled{21}$$

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Simplify the expression below:

$$-4 \times -4 \div 4 \times -4$$

$$16 \div 4 \times -4$$

$$4 \times -4 = \textcircled{-16}$$

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Simplify the expressions below:

1.  $(2 + 9) \times -4$       2.  $(15 \div 3) + (-7)$

$$11 \times -4$$

$$5 + (-7)$$

$$\textcircled{-44}$$

$$5 - 7 =$$

$$\textcircled{-2}$$

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Simplify the expressions below:

3.  $5 \times 6 - 12 \div -4$       4.  $16 - 8 \div 2 + 5$

$$30 - 12 \div -4$$

$$16 - 4 + 5$$

$$30 - (-3)$$

$$16 - 8 \div 2 + 5$$

$$30 + 3 = 33$$

$$33$$

$$16 - 4 + 5$$

$$\textcircled{17}$$

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Simplify the expressions below:

5.  $-7 \times 2^3$       6.  $7 \times 2^3 - 9$

$$-7 \times 8$$

$$7 \times 8$$

$$\textcircled{-56}$$

$$56 - 9$$

$$\textcircled{47}$$

Nov 6-2:15 PM

Simplify the expressions below:

7.  $6^3 - 12 \times -4 \times -3$

$$216 - 12 \times -4 \times -3$$

$$216 + 48 \times -3$$

$$216 - 144$$

$$\textcircled{72}$$

8.  $(9 + (-4)) \times (7 - 7)$

$$(9 - 4) \times (7 - 7)$$

$$5 \times 0 = \textcircled{0}$$

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Simplify the expressions below:

9.  $5 \times (6 - 1) - 4 \times 6 \div 3$   $5 \times 5 - 4 \times 6 \div 3$   
 $5 \times 5 - 4 \times 6 \div 3$   $25 - 4 \times 6 \div 3$   
 $25 - 4 \times 6 \div 3$   $25 - 24 \div 3$   
 $25 - \frac{24}{3}$   $25 - 8$   
 $25 - 8 = 17$

10.  $-12 \div (8 - 6)^2$   $-12 \div (2)^2$   $-12 \div (2)^2$   $-12 \div 4 = -3$   
 $-12 \div (2)^2$   $-12 \div 4 = -3$   
 $-12 \div 4 = -3$   $-12 \div 4 = -3$

Nov 6-2:15 PM

Simplify the expression below:

11.  $(11 - 9)^2 \times (8 - 5)^2$   
 $(2)^2 \times (3)^2$   
 $4 \times 9 = 36$

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Warm up 9/11

a)  $|-17 + 4| - |-13| = 13$

b)  $6 \cdot (-8) = 48$

Sep 11-9:26 AM

1 3 4 7  
 $7 - 4 - 3 + 1$

Sep 11-12:29 PM