

Order of Operations:

- Parenthesis - Grouping Symbols $() [] \{ \} ||$
- Exponents $2^3 = 2 \cdot 2 \cdot 2 = 8$
- Multiply \rightarrow Divide
- Add \rightarrow Subtract
- Divide \rightarrow Multiply
- Subtract \rightarrow Add
- Left \rightarrow Right
- Left \rightarrow Right

Ex 1: $26 - 27 \div 3$

$$26 - 9$$

$$(17)$$

Ex 3: $3 + 5(8 - 2)$

$$3 + 5(6)$$

$$3 + 30$$

$$(33)$$

Ex 2:

$(3)(-5) + (-4)(2)$

$$-15 + -8$$

$$(-23)$$

Ex 4: $18 \div 2 \cdot 3$

$$9 \cdot 3$$

$$(27)$$

Ex 5: $3 + 2|5 + 9|$

$$3 + 2|-4|$$

$$3 + 2 \cdot 4$$

$$3 + 8$$

$$\textcircled{11}$$

Ex 6: $4 + 2^3 + 5(6 - 2)$

$$4 + 2^3 + 5(4)$$

$$4 + 8 + 5(4)$$

$$4 + 8 + 20$$

$$12 + 20 = \textcircled{32}$$

Ex 7: $\frac{4 - 2(5)}{5(3) - 12} = \frac{4 - 10}{5(3) - 12}$

$$= \frac{4 - 10}{15 - 12} = \frac{-6}{3}$$

$$= \textcircled{-2}$$

Ex. 8: $2[3 - 4(1 - 3)^2]$

$$2[3 - 4(-2)^2]$$

$$2[3 - 4 \cdot 4]$$

$$2[3 - 16]$$

$$2[-13]$$

$$\textcircled{-26}$$

Ex. 9: $3(5 + 6) - 4(3)$

$$\underline{3(11)} - \underline{4(3)}$$

$$33 - 12$$

$$\textcircled{21}$$

Combine Like Terms:

Ex. 10: $\underbrace{4x - 3} + \underbrace{5y - 6x + 7}$

$$4x - 6x =$$

$$-3 + 7$$

$$-2x + 5y + 4$$

Ex. 11: $\frac{1}{2}(-2x + 12) - x + 7$

$$\underbrace{-1x + 6} - \underbrace{1x} + 7$$

$$-1x + 1x$$

$$-2x + 13$$

Solving Equations:

- What is happening to the variable?
- What is the opposite operation?

Solve.

Ex. 12: $x + 2 = 5$

$$\begin{array}{r} x + 2 = 5 \\ \underline{-2} \quad -2 \\ \hline x = 3 \end{array}$$

Ex. 13: $x - 3 = 7$

$$\begin{array}{r} x - 3 = 7 \\ \underline{+3} \quad +3 \\ \hline x = 10 \end{array}$$

Notes 1-2

Int 2

Order of Operations, Like Terms, & One-Step Eq.

Unit 1

Solve.

Ex. 14: $\frac{2x}{2} = \frac{46}{2}$

$$x = 23$$

Ex. 18: $x - (-4) = 26$

$$\begin{array}{r} x + 4 = 26 \\ -4 \quad -4 \\ \hline x = 22 \end{array}$$

Ex. 15: $9 \cdot \frac{x}{9} = 4 \cdot 9$

$$x = 36$$

Ex. 19: $\frac{-3x}{-3} = 13 \cdot -3$

$$x = -39$$

Ex. 16: $\frac{-x}{-1} = \frac{7}{-1}$

$$x = -7$$

Ex. 17: $-4 + x = -8$

$$x = -4$$