

## Order of Operations:

- 1) Grouping Symbols  $() [] \{ \}$
- 2) Exponents  $4^2 = 4 \cdot 4 = 16$
- 3) Multiply/Divide  $L \rightarrow R$
- 4) Add/Subtract  $L \rightarrow R$

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:  $18 \div 2 \cdot 3$

$$9 \cdot 3$$

$$27$$

Notes 1-1

Int 2

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

Unit 1

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:  $\frac{4 - 2(5)}{5(3) - 12} = \frac{4 - 10}{15 - 12} = \frac{-6}{3}$

$\frac{-6}{3} = \textcircled{-2}$

P  
E  
MD  
AS

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

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

$2[3 - 4(4)]$

$2[3 - 16]$

$2[-13]$

$\boxed{-26}$

P  
E  
MD  
AS

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

$3(11) - 4(3)$

$33 - 12$

$\textcircled{21}$

**Combine Like Terms:**

Ex. 10:  $4x - 3 + 5y - 6x + 7$        $-3 + 7$

$$\boxed{-2x + 5y + 4}$$

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

$$-1x + 6 - 1x + 7$$

$$\boxed{-2x + 13}$$

**Solving Equations and Inequalities:**

- What is happening to the variable?
- What is the opposite operation?
- What makes inequalities different?

Solve.

Ex. 12:  $x + 2 = 5$

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

$$\boxed{x = 3}$$

*closed*

*open*

*Greater than or equal to*

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

$12 \geq 5$

Notes 1-1

Solve:  $10 - 3 = 7 \checkmark$

Ex. 13:  $x - 3 = 7$   
 $+3 \quad +3$   


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 $x = 10$

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


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 $x = -4$

Ex. 14:  $2x < 46$   
 $\frac{2}{2} \quad \frac{46}{2}$   
 $x < 23$

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


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 $x = 22$



Ex. 15:  $9 \cdot \frac{x}{9} = 4 \cdot 9$   
 $x = 36$

Ex. 19:  $\frac{x}{-3} < 13 \cdot -3$   
 $x > -39$

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

