

# Semester 2



***Review of  
Equations from  
Grade 8***

# How to wrap a present...



## Warm-Up

February 6, 2018

What do you remember from GRADE 8???

1. Solve for the unknown

A.  $3x = 18$   
 ~~$3$~~   $\overline{3}$   
 $x = 6$

B.  $8d - 2 = 6$   
 $8d - \cancel{2+2} = 6+2$   
 $\frac{8d}{8} = \frac{8}{8}$   
 $d = 1$

Rewrite so the variable is on the left side

$$-10 = 3 - 4x$$

$$-4x + 3 = -10$$

$$3 - 4x = -10$$

What is the difference between an expression and an equation???

***Expression***-- A mathematical statement made up of numbers and/or variables connected by operations

$$5n + 4$$

***Equation***---A mathematical statement in which two expressions are equal.

$$5n + 4 = 2$$

- To solve equations we need to undo operations.

- Inverse operations reverse each other's results.



*← opposite*

- Addition and subtraction are inverse operations



- Multiplication and division are also inverse operations

**\*\*\*Perform the inverse operations in the reverse order\*\*\***

Let's Look at a Basic Equation to remind you how this works... Undo the operation

Focus on  
showing  
steps!

$$\begin{array}{l} \text{a) } \cancel{3}x = 27 \\ \quad \underline{\quad} \quad \underline{\quad} \\ \quad \cancel{3} \quad \quad 3 \\ | x = 9 \end{array}$$

$$\begin{array}{l} \text{b) } x - 4 = 10 \\ x \boxed{-4 + 4} = 10 + 4 \\ | x = 14 \end{array}$$

C.  $-27.25 = c + 2.25$

$c + 2.25 = -27.25$

$c + 2.25 - 2.25 = -27.25 - 2.25$

$c = -29.50$

D.  $\frac{3x}{3} = \frac{15.6}{3}$

$x = 5.2$

E.  $-76.05 = -9b$

$\frac{-9b}{-9} = \frac{-76.05}{-9}$

$b = 8.45$

F.  $\frac{4.5w}{4.5} = -3.5(4.5)$

$w = -15.75$



$$\frac{d}{7} - 3 = 11$$

$$\frac{d}{7} \boxed{-3+3} = 11+3$$

$$\frac{d}{7} = 14 \quad (7)$$

$$d = 98$$

$$-16 = \frac{p}{6} + 2$$

$$\frac{p}{6} + 2 = -16$$

$$\frac{p}{6} + 2 - 2 = -16 - 2$$

$$\frac{p}{6} = -18^{(6)}$$

$$p = -108$$

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SHOW ALL STEPS

Practice The Steps!

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