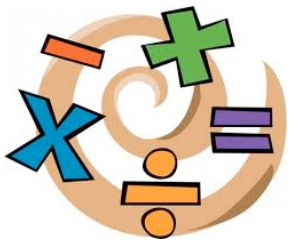
ALGEBRA 460/461

CHAPTER 3: SOLVING EQUATIONS



Day 0 **CHAPTER 1 & 2 TEST**

Homework: **3.1 SOLVING ONE-STEP EQUATIONS (PART 1)**

Day 1 **Classwork:** Warm Up and Classwork: Solving One-Step Equations

Homework: **3.1 SOLVING ONE-STEP EQUATIONS (PART 2)**

Day 2 **Classwork:** Warm Up and Classwork: Solving One-Step Equations

Homework: **3.3 SOLVING TWO-STEP EQUATIONS**

Day 3 **Classwork:** Warm Up and Classwork: Solving Two-Step Equations

Homework: **3.3 SOLVING TWO-STEP EQUATIONS**

Day 4 **Classwork:** Classwork: Solving Two-Step Equations

Homework: **3.3 SOLVING REAL WORLD PROBLEMS**

Day 5 **Classwork:** Warm Up and Classwork: Solving Real World Problems

Homework: **3.3 SOLVING MULTI-STEP EQUATIONS**

Day 6 **Classwork:** Warm Up and Classwork: Solving Multi-Step Equations

Homework: **NONE!**

Day 7 **Classwork:** Classwork: 3.1 to 3.4 Quiz Review

Homework: **NO VIDEO! STUDY FOR QUIZ!!**

Day 8 **QUIZ ON DAYS 1-7**

Homework: **3.4 SOLVING EQUATIONS WITH VARIABLES ON BOTH SIDES (PART 1)**

Day 9 **Classwork:** Warm Up and Classwork: Solving Equations with Variables on Both Sides

Homework: **3.4 SOLVING EQUATIONS WITH VARIABLES ON BOTH SIDES (PART 2)**

Day 10 **Classwork:** Warm Up and Classwork: Solving Equations with Variables on Both Sides

Homework: **3.7 REWRITE EQUATIONS IN SLOPE-INTERCEPT FORM**

Day 11 **Classwork:** Warm Up and Classwork: Rewrite Equations in Slope-Intercept Form

Homework: **NONE!**

Day 12 **Classwork:** Classwork: Rewrite Equations in Slope-Intercept Form

Homework: **NONE!**

Day 13 **Classwork:** Classwork: 3.4 to 3.7 Quiz Review

Homework: **NO VIDEO! STUDY FOR QUIZ!!**

Day 14 **QUIZ ON DAYS 8–13**

Homework: NONE!

Day 15 **Classwork:** Day 15 Classwork: Chapter 3 Test Review

Homework: NO VIDEO! STUDY FOR QUIZ!!

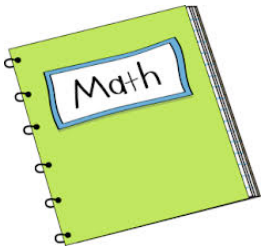
Day 16 **CHAPTERS 3 TEST**

Homework: 4.1 THE COORDINATE PLANE

SNAPPLE FACT #231

THE WORD "EARTH" HAS BEEN ON EARTH FOR 7,000 YEARS.

3.1 SOLVING ONE-STEP EQUATIONS (PART 1)



Today's Target: To use _____ to isolate "x"
(get x by itself)

INVERSE OPERATIONS:

a.)

b.)

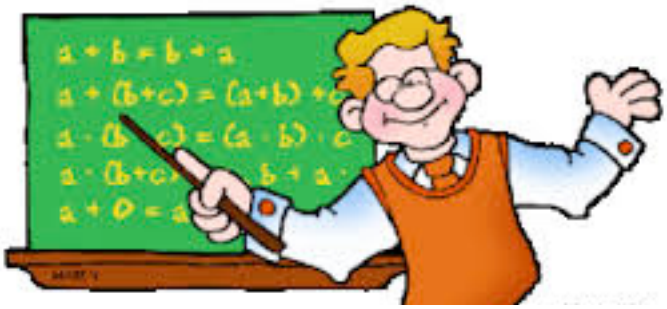
Solve the following using inverse operations. Then ☑ your solutions.

1) $x + 2 = 17$ ☑

2) $x - 7 = 3$ ☑

3) $\frac{x}{6} = 2$ ☑

4) $9x = 54$ ☑



3.1 SOLVING ONE-STEP EQUATIONS (PART 2)

Use inverse operations to solve equations.

Solve the following using inverse operations. Then ☑ your solutions.

1) $x - (-8) = 10$ ☑

2) $-x = 12$ ☑

3) $\frac{2}{7} + m = \frac{5}{7}$ ☑

4) $\frac{3}{4}n = -\frac{2}{5}$ ☑

5) $-\frac{2}{3}x = 4$ ☑

3.3 SOLVING TWO-STEP EQUATIONS

Use two or more steps to solve linear equations.

Solve the following using inverse operations. Then ☑ your solutions.

1) $3x + 2 = 17$ ☑

2) $-2x + 16 = 4$ ☑

3) $-x + 7 = -3$ ☑

4) $\frac{1}{3}x - 2 = 11$ ☑

3.3 SOLVING TWO-STEP EQUATIONS

Use two or more steps to solve linear equations.

Solve the following using inverse operations. Then ☑ your solutions.

1) $3x + 2x = 15$ ☑

2) $4 = -2x + 16$ ☑

3) $7 - x = -3$ ☑

4) $\frac{3}{4}x - 2 = 10$ ☑

3.3 SOLVING REAL WORLD PROBLEMS

Use algebra to solve real world problems.

4 STEPS TO SOLVING WORD PROBLEMS:

1. _____
2. _____
3. _____
4. _____

Use the 4 steps to solve each of the following word problems.

1) 3 plus the quotient of a number and 2 is 7. What is the number?

   a. Define a variable:

   b. Write an equation:

   c. Solve:

   d. Write a sentence:

2) The sum of 6 times a number and 3 is 21. What is the number?

   a. Define a variable:

   b. Write an equation:

   c. Solve:

   d. Write a sentence:

3.3 SOLVING MULTI-STEP EQUATIONS

Use the distributive property and combining like terms along with inverse operations to solve linear equations.

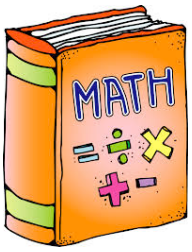
Solve the following using inverse operations. Then ☑ your solutions.

1) $3(x - 2) = 18$ ☑

2) $8x - 3x + 6 = -9$ ☑

3) $10x - 3(2x - 4) = 8$ ☑

4) $5x - 4(2 + 4x) = 14$ ☑



3.4 SOLVING EQUATIONS WITH VARIABLES ON BOTH SIDES

Solve equations with variables on both sides, and determine whether or not a solution exists.

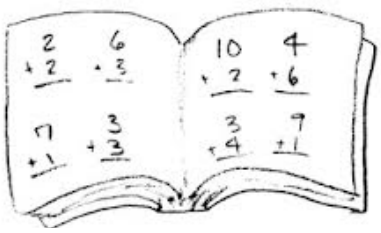
Solve the following using inverse operations. Then ☑ your solutions.

1) $7x + 19 = -2x + 55$ ☑

2) $6x + 22 = -3x + 31$ ☑

3) $5x - 3x + 4 = 3x + 8$ ☑

4) $6x + 3 = 8 + 7x + 2x$ ☑



3.4 SOLVING EQUATIONS WITH VARIABLES ON BOTH SIDES

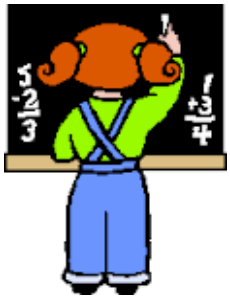
Solve equations with variables on both sides, and determine whether or not a solution exists.

Solve the following using inverse operations. Then ☑ your solutions.

1) $3(2x + 5) = 4x + 21$ ☑

2) $3(2x + 5) = 6x + 15$ ☑

3) $3(2x + 5) = 6x + 10$ ☑



3.7 REWRITING EQUATIONS IN SLOPE-INTERCEPT FORM

Rewrite linear equations in slope-intercept form.

Rewrite each of the following equations in slope-intercept form.

Standard From is written in the form of _____. Our goal is to change our equations from Standard Form to **Slope-Intercept Form**

1) $4x + 2y = 12$

2) $6x - 3y = 18$

3) $-3x - y = 7$

4) $-5x + 4y = 12$