

# Monday, November 26, 2012

## Agenda:

- TISK Problems, No MM
- Brief Test Review
- Start lesson 10-6: Solving Systems
- Homework: p.525-526 #1-4 &17-20

## TISK Problems

- 1) Simplify:  $3x - 5y + (12x + 7y)$
- 2) Evaluate:  $-6(-8 \cdot -3)$
- 3) Find the requested information. Write your answer as a complete sentence.

Mika earns a 3% commission on her weekly sales plus a \$450 weekly salary. If her sales totaled \$4,050 last week, how much did she earn for the week?

# Chapter 9 Test

- Class Averages:
  - 7D: 78.4%
  - 7B: 83.9%
  - 7C: 84.4%
- Overall good work!
- Remember that you can get your test signed for an additional 2 points of extra credit. Signatures are due one week from today; December 3.
- Most issues were in the REVIEW section (problems 30-40)!

# §10-6 Systems of Equations

- A **system** of equations is a set of two or more equations.
- A solution to a system of equations is a set of values that are solutions of **all** the equations.
- Goal #1: Identify a Solution to a System
  - Determine whether each ordered pair is a solution of the system of equations below.

- $5x + y = 7$
- $x - 3y = 11$

- a) (1, 2)
- b) (2, -3)
- c) (20, 3)

a) (1, 2)

Let  $x = 1$  and  $y = 2$ .

$$5x + y = 7$$

$$5(1) + 2 = 7$$

$$7 = 7$$

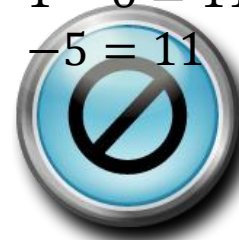


$$x - 3y = 11$$

$$1 - 3(2) = 11$$

$$1 - 6 = 11$$

$$-5 = 11$$



# §10-6 Systems of Equations

- Determine whether each ordered pair is a solution of the system of equations below. a) (1, 2)

- $5x + y = 7$
- $x - 3y = 11$
- a) (1, 2) **No**
- b) (2, -3) **Yes**
- c) (20, 3) **No**

Let  $x = 1$  and  $y = 2$ .

$$5x + y = 7$$

$$5(1) + 2 = 7$$

$$7 = 7$$

$$x - 3y = 11$$

$$1 - 3(2) = 11$$

$$1 - 6 = 11$$

$$-5 = 11$$

b) (2, -3)

Let  $x = 2$  and  $y = -3$ .

$$5x + y = 7$$

$$5(2) + (-3) = 7$$

$$10 - 3 = 7$$

$$7 = 7$$



$$x - 3y = 11$$

$$2 - 3(-3) = 11$$

$$2 + 9 = 11$$

$$11 = 11$$



c) (20, 3)

Let  $x = 20$  and  $y = 3$ .

$$5x + y = 7$$

$$5(20) + 3 = 7$$

$$100 + 3 = 7$$

$$103 = 7$$



# §10-6 Systems of Equations

- You need ALL “Yes” answers for the ordered pair to be a solution.
- You need only ONE “No” for the ordered pair to NOT be a solution.

# §10-6 Systems of Equations

- You try it.
  - Determine if the ordered pair is a solution of the system.
    - $y = 2x$
    - $y = -4x + 12$
- a) (2, 4)                      b) (-3, -6)                      c) (3, 0)

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# §10-6 Systems of Equations

- You try it.
  - Determine if the ordered pair is a solution of the system.
    - $y = 2x$
    - $y = -4x + 12$
- a) (2, 4)                      b) (-3,-6)                      c) (3,0)



# Homework

Determine if the ordered pair is a solution of each system of equations.

1.  $(2, 3)$        $y = 2x - 1$   
                          $y = x + 1$

2.  $(2, 7)$        $y = 5x - 3$   
                          $y = 3x + 1$

3.  $(2, 4)$        $y = 4x - 4$   
                          $y = 2x$

4.  $(2, 2)$        $y = 2x + 1$   
                          $y = 3x - 2$

17.  $(0, 1)$        $y = -2x - 1$   
                          $y = 2x + 1$

18.  $(5, 11)$        $y = 3x - 4$   
                          $y = 2x + 1$

19.  $(-1, 5)$        $y = 4x + 1$   
                          $y = 3x$

20.  $(-6, -9)$        $y = x - 3$   
                          $y = 2x + 3$