

Tuesday, November 27, 2012

Agenda:

- TISK Problems, 2MM
- Homework Check
- Continue lesson 10-6: Solving Systems
- Homework:
Systems of Equations: Graphic Method Worksheet

TISK Problems

- 1) Simplify: $4x - 7y - (3x + 9y)$
- 2) Evaluate: $-5(-7 \cdot -2)$
- 3) Find the requested information. Write your answer as a complete sentence.
Evan earns a 4% commission on his weekly sales plus a \$250 weekly salary. If his sales totaled \$8,350 last week, how much did he earn for the week?

Homework Check

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

- | | | | |
|-----------|--------------|--------------|---------------|
| 1. (2, 3) | $y = 2x - 1$ | 17. (0, 1) | $y = -2x - 1$ |
| Yes | $y = x + 1$ | No | $y = 2x + 1$ |
| 2. (2, 7) | $y = 5x - 3$ | 18. (5, 11) | $y = 3x - 4$ |
| Yes | $y = 3x + 1$ | Yes | $y = 2x + 1$ |
| 3. (2, 4) | $y = 4x - 4$ | 19. (-1, 5) | $y = 4x + 1$ |
| Yes | $y = 2x$ | No | $y = 3x$ |
| 4. (2, 2) | $y = 2x + 1$ | 20. (-6, -9) | $y = x - 3$ |
| No | $y = 3x - 2$ | Yes | $y = 2x + 3$ |

Graphing to Solve

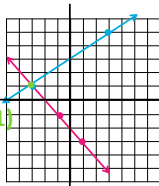
- The first way to solve a system of equations is by graphing the equations.
- The point where the two equations intersect is the solution to the system.

Example 1. Solve the system by graphing.

$$\begin{array}{r} x + y = -2 \\ -x = -x \\ \hline y = -x - 2 \end{array}$$

x	y
-1	-1
1	-3

(-3, 1)



$$\begin{array}{r} 2x - 3y = -9 \\ +3y = +3y \\ \hline 2x - 9 = -9 \end{array}$$

$$\frac{2x - 9}{3} = \frac{3y - 9}{3}$$

$$\frac{2}{3}x + 3 = y$$

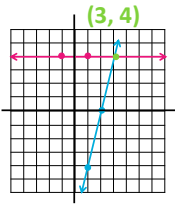
x	y
3	5
-3	1

Example 2. Together...

- Solve the system graphically.

$$y = 4$$

x	y
-1	4
1	4



$$4x - y = 8$$

$$+y \quad +y$$

$$\hline 4x = y + 8$$

$$-8 \quad -8$$

x	y
2	0
1	-4

Check Point. You try it.

- Solve the linear system graphically.

$$-2x + y = 2$$

$$x + y = -1$$

