Name:_____ Date:_____

UNIT 3 **LESSON 6.5**

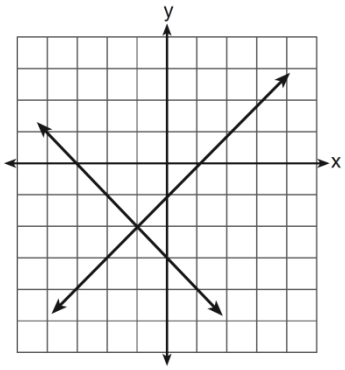
Do Now: What is the solution of the system of equations shown in the graph below?

1) $(1, 0)$ and $(-3, 0)$

2) $(0, -3)$ and $(0, -1)$

3) $(-1, -2)$

4) $(-2, -1)$



AIM: What are Multipliers?

1. Consider the following compound sentence: $y = -x + 10$ and $y = 2x + 1$.
   a. How many same solutions do these lines have? Explain your answer.

   b. Multiply both equations by two.

   c. How many same solutions do the new equations have? Explain your answer.

2. Consider the following compound sentence: $4y = -4x + 40$ and $5y = 10x + 5$.
   a. How many same solutions do these lines have? Explain your answer.

3. Which system of equations has the same solution as the system below?

$$2x + 2y = 16$$
$$3x - y = 4$$

1) $2x + 2y = 16$
$6x - 2y = 4$

2) $2x + 2y = 16$
$6x - 2y = 8$

3) $x + y = 16$
$3x - y = 4$

4) $6x + 6y = 48$
$6x + 2y = 8$

4. A system of equations is given below. Which system of equations does *not* have the same solution?

$$x + 2y = 5$$
$$2x + y = 4$$

1) $3x + 6y = 15$
$2x + y = 4$

2) $4x + 8y = 20$
$2x + y = 4$

3) $x + 2y = 5$
$6x + 3y = 12$

4) $x + 2y = 5$
$4x + 2y = 12$

Name:_____ Date:_____

UNIT 3 **LESSON 6.5**

EXIT TICKET

Which pair of equations could not be used to solve the following equations for *x* and *y*?

$$4x + 2y = 22$$

$$-2x + 2y = -8$$

1) $4x + 2y = 22$

   $2x - 2y = 8$

2) $4x + 2y = 22$

   $-4x + 4y = -16$

3) $12x + 6y = 66$

   $6x - 6y = 24$

4) $8x + 4y = 44$

   $-8x + 8y = -8$

Name:_____ Date:_____

UNIT 3 **LESSON 6.5**

EXIT TICKET

Which pair of equations could not be used to solve the following equations for *x* and *y*?

$$4x + 2y = 22$$

$$-2x + 2y = -8$$

1) $4x + 2y = 22$

   $2x - 2y = 8$

2) $4x + 2y = 22$

   $-4x + 4y = -16$

3) $12x + 6y = 66$

   $6x - 6y = 24$

4) $8x + 4y = 44$

   $-8x + 8y = -8$