Name: _____ Teacher: _____ School: _____

Grade 8: Lesson 15 Solving Systems of Linear Equations – Cumulative Review

Complete the following exercises. You may use a calculator as needed.

Solving Systems of Equations by Elimination – Multiplying

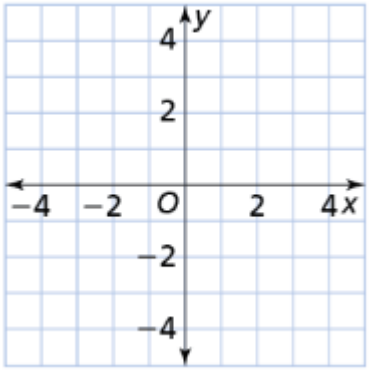
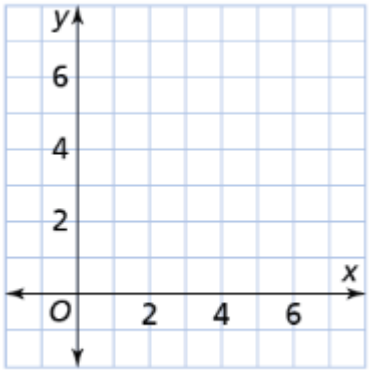
1. $3x + 6y = 18$ $6x - 2y = 22$ x = _____ y = _____	2. $2x + 3y = 26$ $3x + 5y = 40$ x = _____ y = _____

Solving Systems of Equations by Elimination – Adding/Subtracting

3. $3x - 2y = 24$ $x + 2y = 48$ x = _____ y = _____	4. $y - x = 28$ $y + x = 156$ x = _____ y = _____

Solving Systems of Equations by Substitution

5. $y = 4.5x + 7.5$ $y = -3.5x - 4.5$ x = _____ y = _____	6. $5x + y = -24$ $X+ 3y = -2$ x = _____ y = _____

7. $x + 4y = 8$ $3x + 4y = 0$ Solution: _____	
8. $x + 2y = 4$ $4x + 8y = 64$ Solution: _____	

9. The sum of Bobbi's and Dan's heights is 130 inches. Dan's height subtracted from three times Bobbi's height is 118 inches. What are Bobbi's and Dan's heights in inches?
   a. Let x = Bobbi's height and let y= Dan's height (fill in the blank) $x + y =$ _____
      ___$x - y =$ _____
   b. Add the equations to eliminate y and solve. What is the value of x? $x =$ _____
   c. How can you find the value of y? What is the value of y? $y =$ _____
   d. What are Bobbi's and Dan's heights in inches? Bobbi's height = _____
      Dan's height = _____