Name:_____ Period:_____ Score: _____/_____=_____%=_____

## HW 6-2 HONORS: Solve Systems of Equations using Graphs & Substitution

Instructions: Graph the following equations and tell the coordinates of where they intersect.

1) $y = 3x - 3$
$y = x - 3$

2) $y = \dfrac{3}{4}x - 6$
$y = -\dfrac{3}{2}x + 3$

3) $y = \dfrac{3}{2}x - 6$
$y = -4x + 5$

Solution:_____
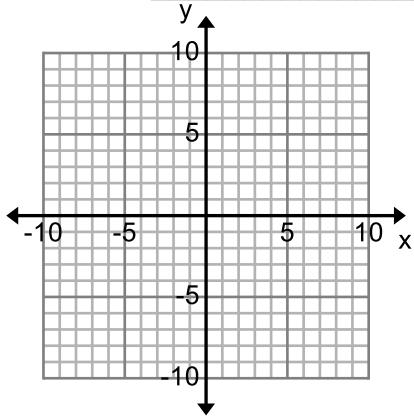
Solution:_____
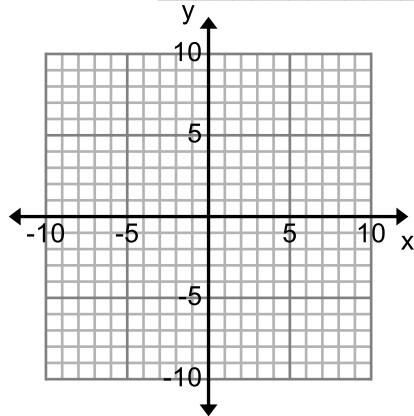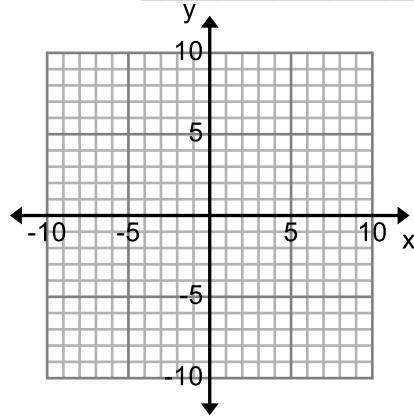
Solution:_____

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

5) $3x - 2y = 8$
$y = -2x + 3$

6) $y = -\dfrac{1}{2}x + 3$
$2x + 4y = 12$

Solution:_____

Solution:_____
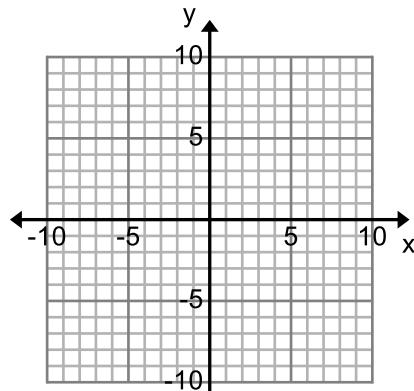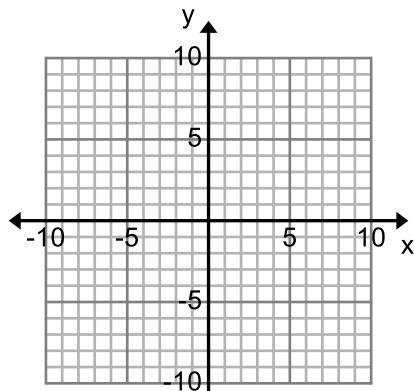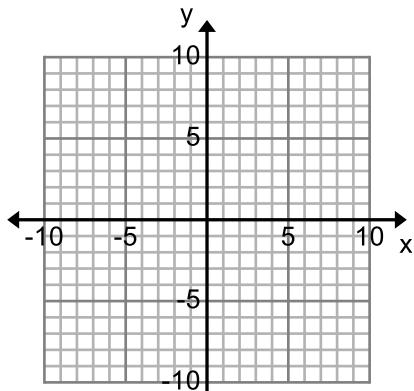
Solution:_____

7. $\begin{aligned} x - y &= 2 \\ x + y &= 6 \end{aligned}$

8. $\begin{aligned} x - y &= 3 \\ x + y &= -1 \end{aligned}$

9. $\begin{aligned} x + y &= 4 \\ y - x &= 4 \end{aligned}$

Solution:_____
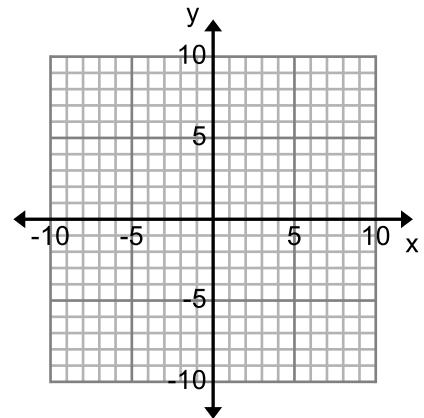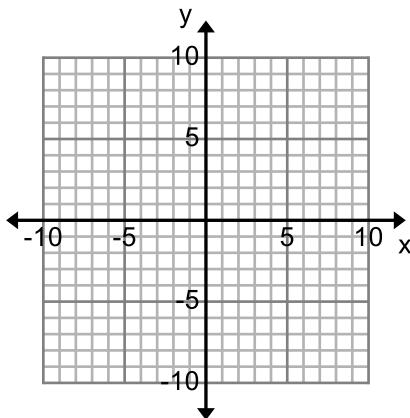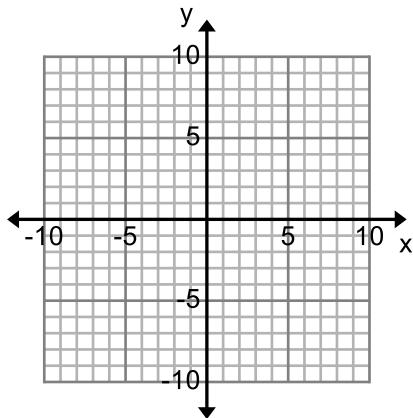
Solution:_____

Solution:_____

10. $\begin{aligned} y &= \left(\frac{1}{3}\right)^x \\ y &= x + 4 \end{aligned}$

11. $\begin{aligned} y &= 2^x \\ y &= \frac{1}{2}x - 3 \end{aligned}$

12. $\begin{aligned} y &= 8\left(\frac{1}{2}\right)^x \\ y &= 3x + 1 \end{aligned}$

Solution:_____
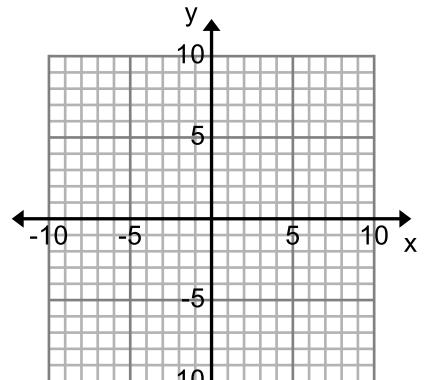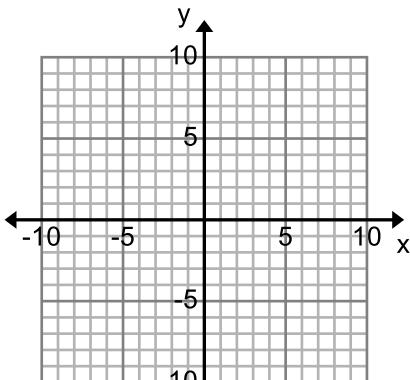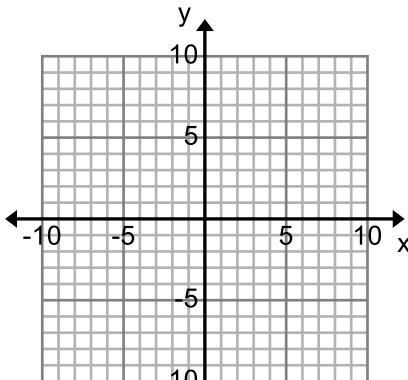
Solution:_____

Solution:_____

Solve the following systems of equations using substitution. **SHOW WORK** and **STATE the SOLUTION.**

13) $\begin{array}{l} y = 6x - 11 \\ -2x - 3y = -7 \end{array}$

14) $\begin{array}{l} y = x - 1 \\ 2x - 3y = -1 \end{array}$

15) $\begin{array}{l} y = -3x + 5 \\ 5x - 4y = -3 \end{array}$

16) $\begin{array}{l} -3x + 3y = 4 \\ -x + y = 3 \end{array}$

17) $\begin{array}{l} 2x - 4y = 6 \\ x = 2y + 3 \end{array}$

18) $\begin{array}{l} y = 4x - 2 \\ y = -2x + 1 \end{array}$

19) $\begin{array}{l} y = -\dfrac{1}{3}x + 4 \\ y = -x + 2 \end{array}$

20) $\begin{array}{l} -2x - y = -9 \\ 5x - 2y = 18 \end{array}$