DIRECTIONS: Use a graph to solve each system of equations. If a system has no solution (parallel lines) , write "no solution." If the graphs coincide, write "infinitely many solutions." You can check solutions by substituting the values for x and y into **both** equations… it should work! There are graphs on the back of this sheet.

1. $\begin{cases} y = x + 5 \\ y = -x - 1 \end{cases}$
$(-3, 2)$

2. $\begin{cases} y = 2 \\ y = \frac{4}{3}x - 2 \end{cases}$
$(3, 2)$

3. $\begin{cases} y + 2x = 0 \\ 2y = -x - 6 \end{cases}$
$(2, -4)$

4. $\begin{cases} y = 4x - 1 \\ 4x - y = 3 \end{cases}$
no solution

5. $\begin{cases} y = -2x + 2 \\ 4x + 2y = 4 \end{cases}$
infinitely many solutions

DIRECTIONS: Use the substitution method to solve each system of equations.

6. $\begin{cases} x + 2y = 4 \\ 3x - 2y = 4 \end{cases}$
$(2, 1)$

7. $\begin{cases} 3x + 2y = -1 \\ 2x + y = 1 \end{cases}$
$(3, -5)$

8. $\begin{cases} x + 3y = 3 \\ 3x - 2y = 13 \end{cases}$
$(\frac{45}{11}, -\frac{4}{11})$

9. $\begin{cases} 3a + 2b = -2 \\ 9a - b = -6 \end{cases}$
$(-\frac{2}{3}, 0)$

10. $\begin{cases} 2m - 5n = 14 \\ m + \frac{3}{2}n = 5 \end{cases}$
$(\frac{23}{4}, -\frac{1}{2})$

DIRECTIONS: Use the linear combination (dropout) method to solve each system of equations.

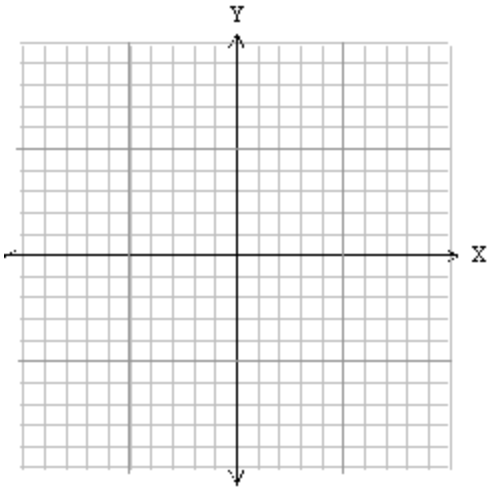
11. $\begin{cases} 3x - 2y = 6 \\ 4x - 3y = 7 \end{cases}$
(4, 3)

12. $\begin{cases} 5x - 6y = 9 \\ 2x - 3y = 3 \end{cases}$
(3, 1)

13. $\begin{cases} 4x - 3y = 6 \\ 2x - 5y = -4 \end{cases}$
(3, 2)

14. $\begin{cases} 2x - 3y = 3 \\ 5x + 2y = 17 \end{cases}$
(3, 1)

15. $\begin{cases} 4x + 5y = 3 \\ 3x + 2y = 4 \end{cases}$
$(2, -1)$


Y
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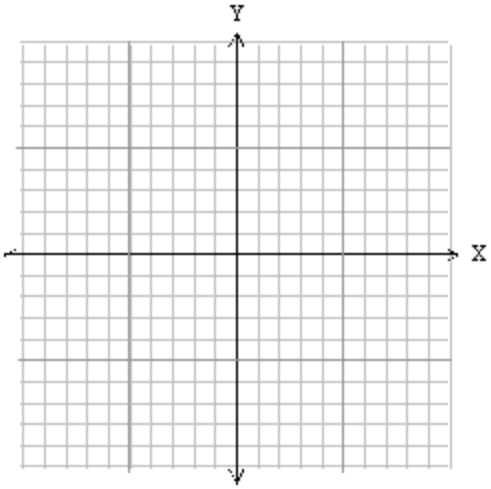
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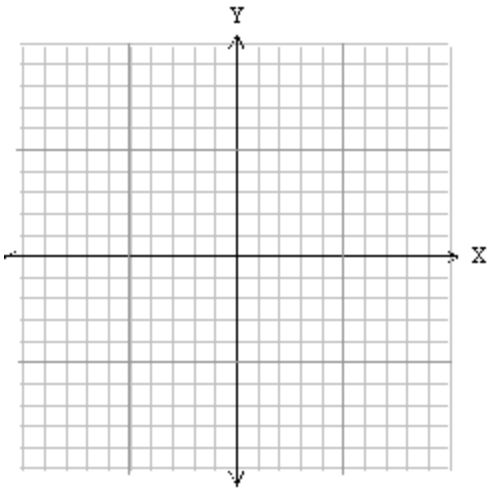
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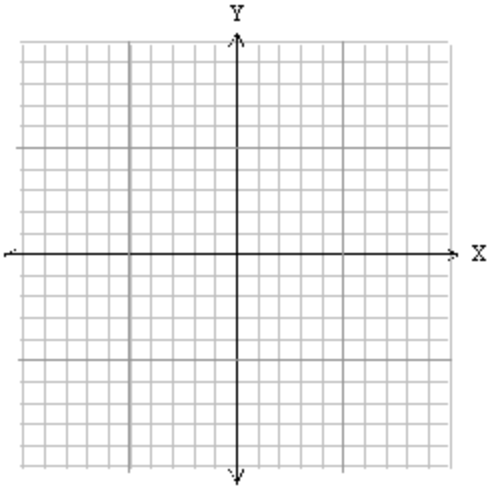
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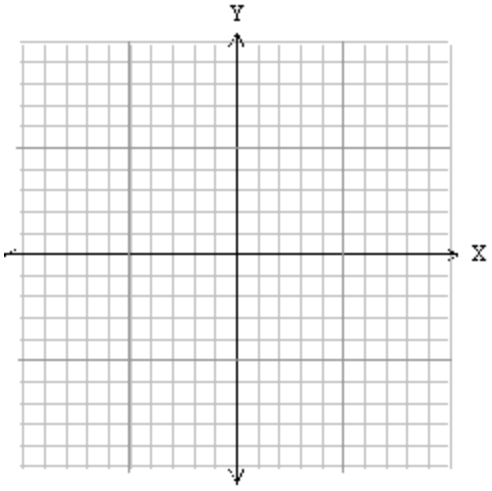
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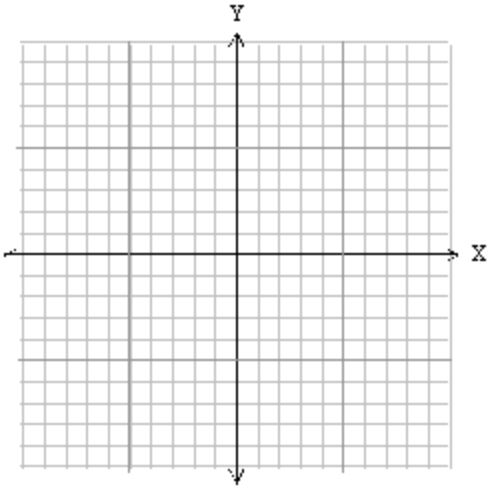
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