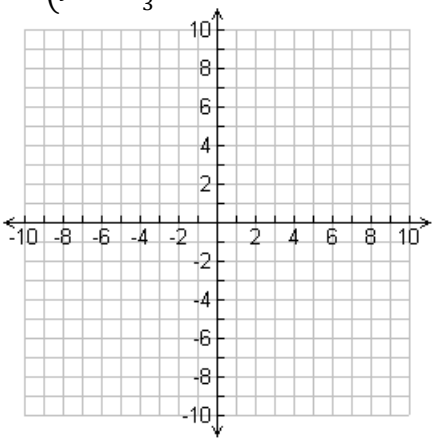
Solving Systems by Graphing: Review

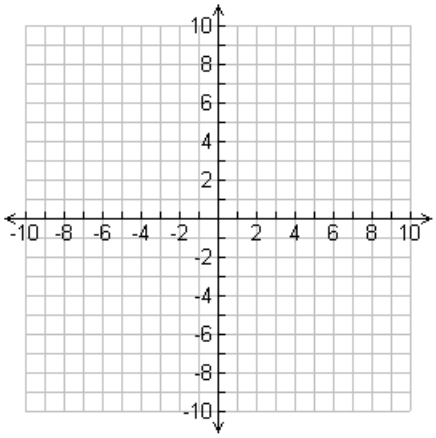
If you need help with these: Go to **lischwe.weebly.com** and look at the lesson on December 2. Look at December 3 for help with getting y by itself.

Solve the system by graphing.

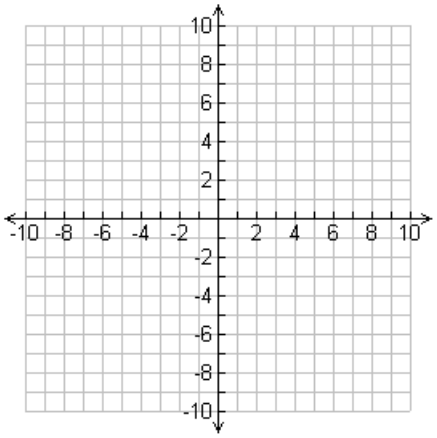
1) $\begin{cases} y = \frac{1}{2}x - 1 \\ y = -\frac{2}{3}x + 6 \end{cases}$



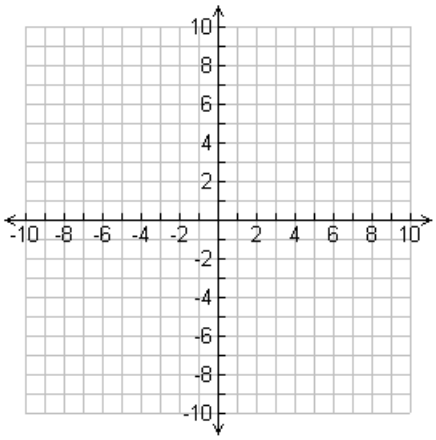
2) $\begin{cases} y = 2x - 2 \\ y = 3x - 7 \end{cases}$



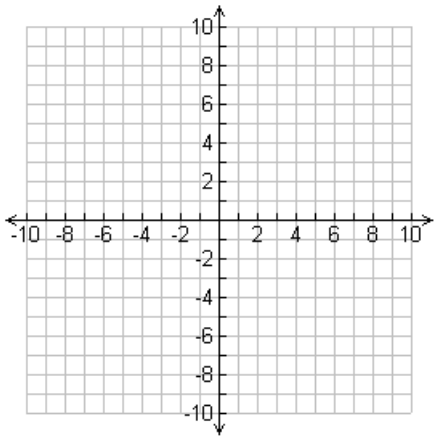
3) $\begin{cases} y = x + 5 \\ y = -\frac{1}{3}x - 7 \end{cases}$



4) $\begin{cases} x + y = 9 \\ y = 2x \end{cases}$



5) $\begin{cases} -4x + 2y = -16 \\ y = -3x + 7 \end{cases}$



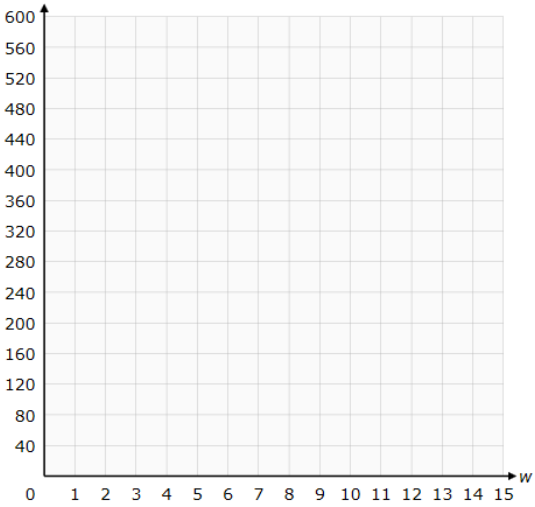
6) Reynold has $20 in his bank account and deposits $60 per month. Keith has $560 in his bank account but withdraws $30 per month.

a) Write a system of equations.

b) Graph them and find the intersection.

c) Explain what the numbers in your solution represent.

d) Check your answer.



7) Choose two problems from #1 – 6, then check your solution by substituting the numbers back into both original equations.

Solving Systems by Substitution: Review

If you need help with these: Go to **lischwe.weebly.com** and look at the lessons on December 4 and 5.

Solve by substitution. Use the back if necessary. Don't forget to find both x and y!!!

1) $\begin{cases} y = -x + 10 \\ y = 6x + 59 \end{cases}$

2) $\begin{cases} y = 3x \\ x - 2y = 15 \end{cases}$

3) $\begin{cases} x = 5y - 12 \\ x + 3y = 12 \end{cases}$

4) $\begin{cases} -3x + 5y = 0 \\ y = x - 6 \end{cases}$

5) There are 100 members in the US Senate. Currently, there are four times as many men as women. Write a system of equations, solve it, and describe what the numbers in your solution represent. Make sure to check your answer.

6) $\begin{cases} y = \frac{3}{2}x \\ y = -1x + 10 \end{cases}$

7) $\begin{cases} 4x - 2y = -14 \\ y = -3x + 2 \end{cases}$

Solving Systems by Elimination: Review

If you need help with these: Go to **lischwe.weebly.com** and look at the lessons on December 6 and 9.

Solve by elimination. Use the back if necessary. Don't forget to find both x and y!!!

1) $\begin{cases} x + 4y = 9 \\ 3x - 4y = 19 \end{cases}$

2) $\begin{cases} -x + 2y = -7 \\ 2x - 3y = 8 \end{cases}$

3) $\begin{cases} 5x + 3y = -14 \\ 5x - 4y = 42 \end{cases}$

4) Farmer Ben has 22 animals – all are either ducks or cows. Each cow has 4 legs, each duck has 2 legs, and there are 56 legs all together. Write and solve a system to find out how many of each type of animal Farmer Ben has. Make sure to check your answer.

5) $\begin{cases} 2x + 6y = 22 \\ 3x - 4y = 7 \end{cases}$

6) Check your answer for one of the problems from #1 -3 or 5 by plugging the numbers into **both** original equations.