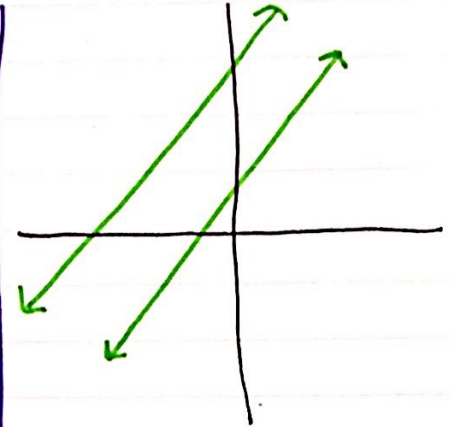
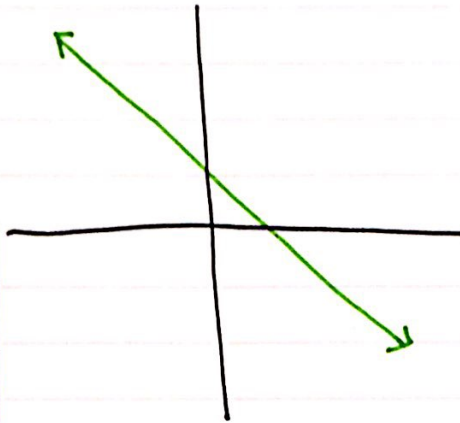
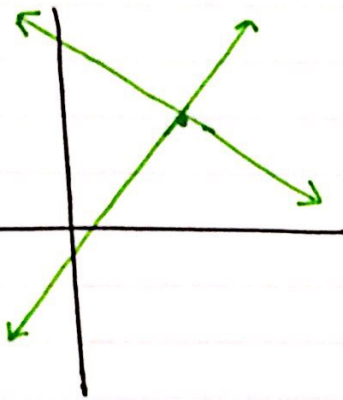


Solving Systems of Equations by Graphing



OBSERVATIONS:

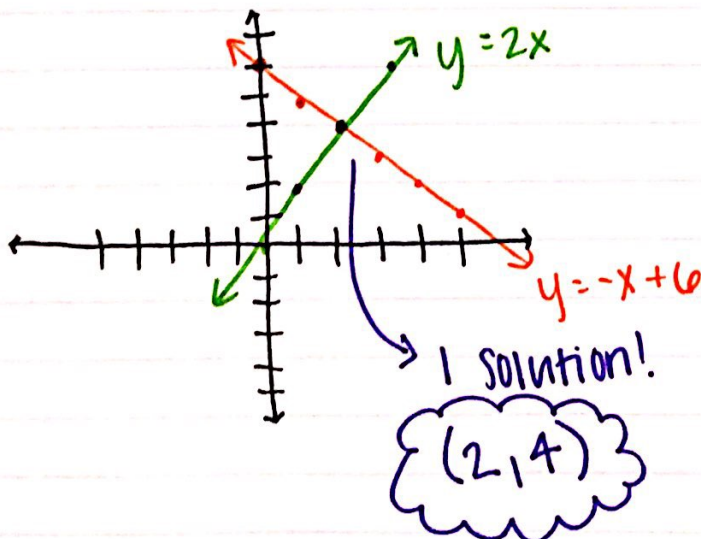
intersect at 1 pt.
 1 pos. slope
 1 neg. slope
 different slopes
 different y-intercepts

looks like 1 line
 neg. slope
 could be 2 of the
 same line ...
 (same slope +
 same y-int.)

parallel
 same slopes
 positive slopes
 different
 y-intercepts

ex. Solve the system by graphing:

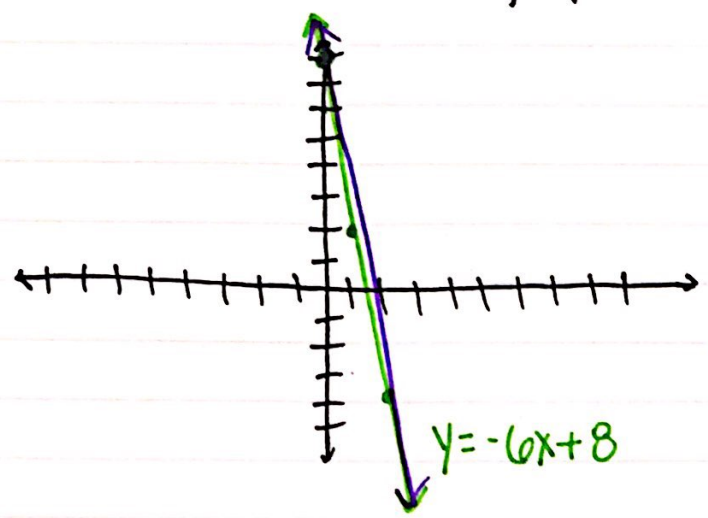
$$\begin{aligned} x + y &= 6 \\ y &= 2x + 0 \end{aligned} \quad y = -x + 6$$



ex. Solve the system by graphing:

$$\begin{aligned} y &= -6x + 8 \\ 6x + y &= 8 \\ -6x & \quad -6x \\ y &= -6x + 8 \end{aligned}$$

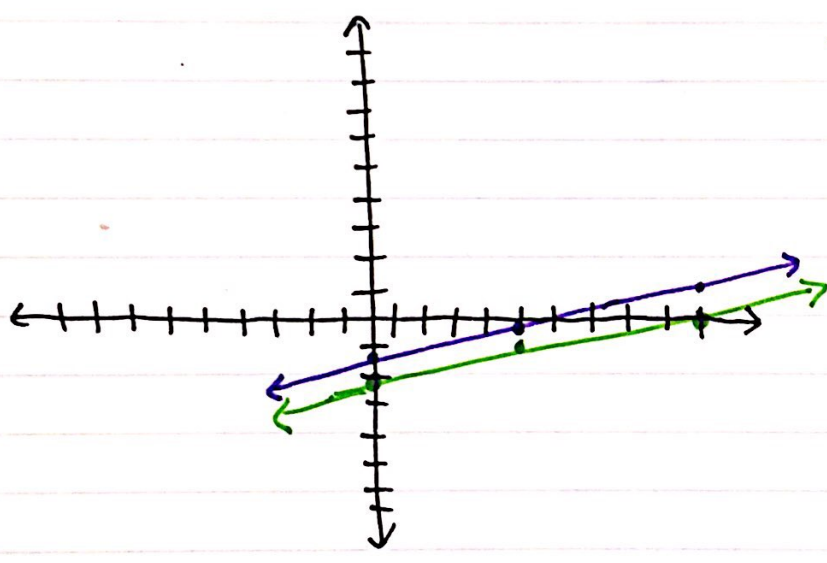
same line!



infinite solutions

ex. Solve the system by graphing:

$$\begin{aligned} x - 5y &= 10 \\ -5y &= -x + 10 \\ \frac{-5y}{-5} &= \frac{-x + 10}{-5} \\ y &= \frac{1}{5}x - 2 \end{aligned}$$



same slope!
parallel!

no solution