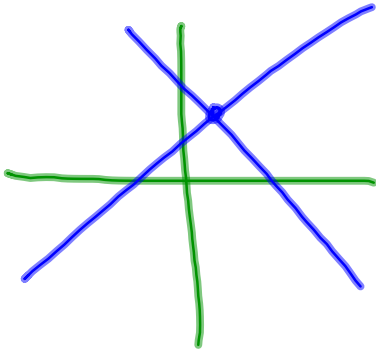


7a - Solve systems of equations by graphing.

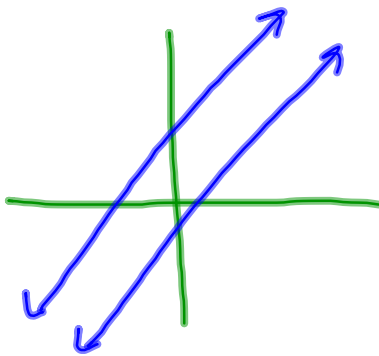
System of equations: two or more equations together in a coordinate plane.

The solution for a system of equations is a shared point that satisfies both equations.

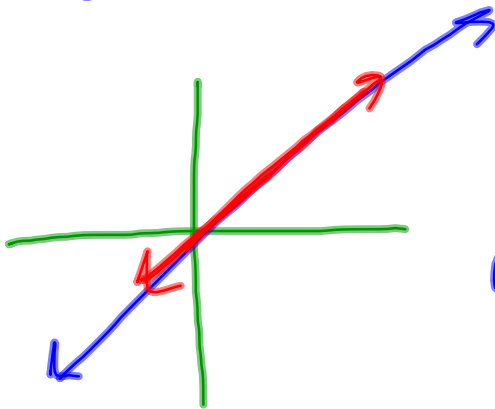


intersecting lines
1 solution: (x, y)

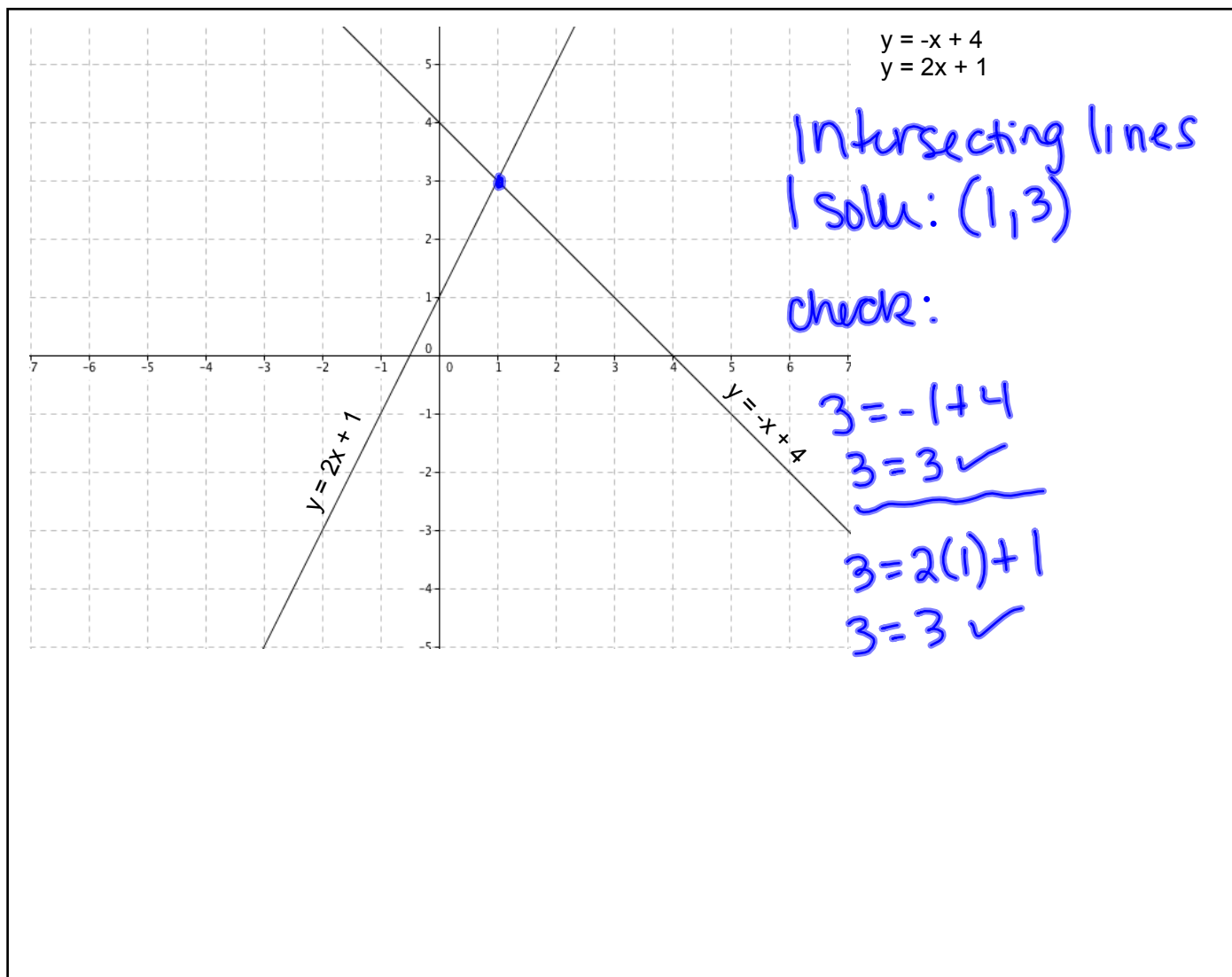
solution is where they intersect

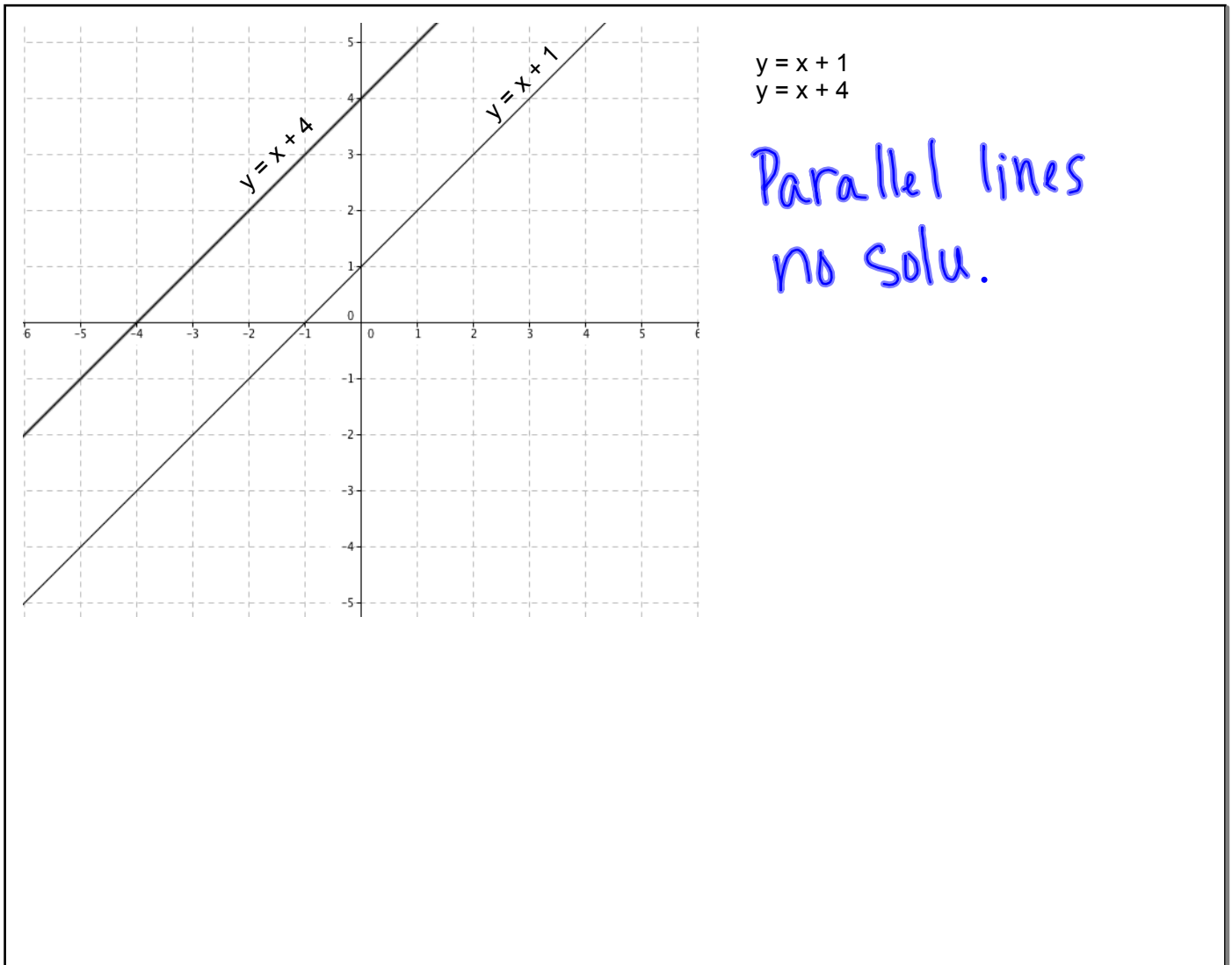


Parallel lines
no solu.



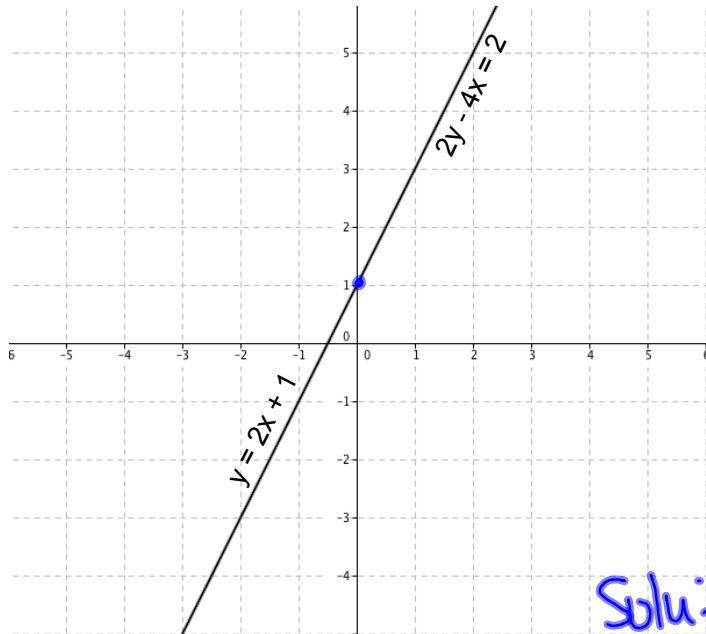
Same line
infinite solutions
any pt on the line $y = mx + b$





$$y = x + 1$$
$$y = x + 4$$

Parallel lines
no solu.

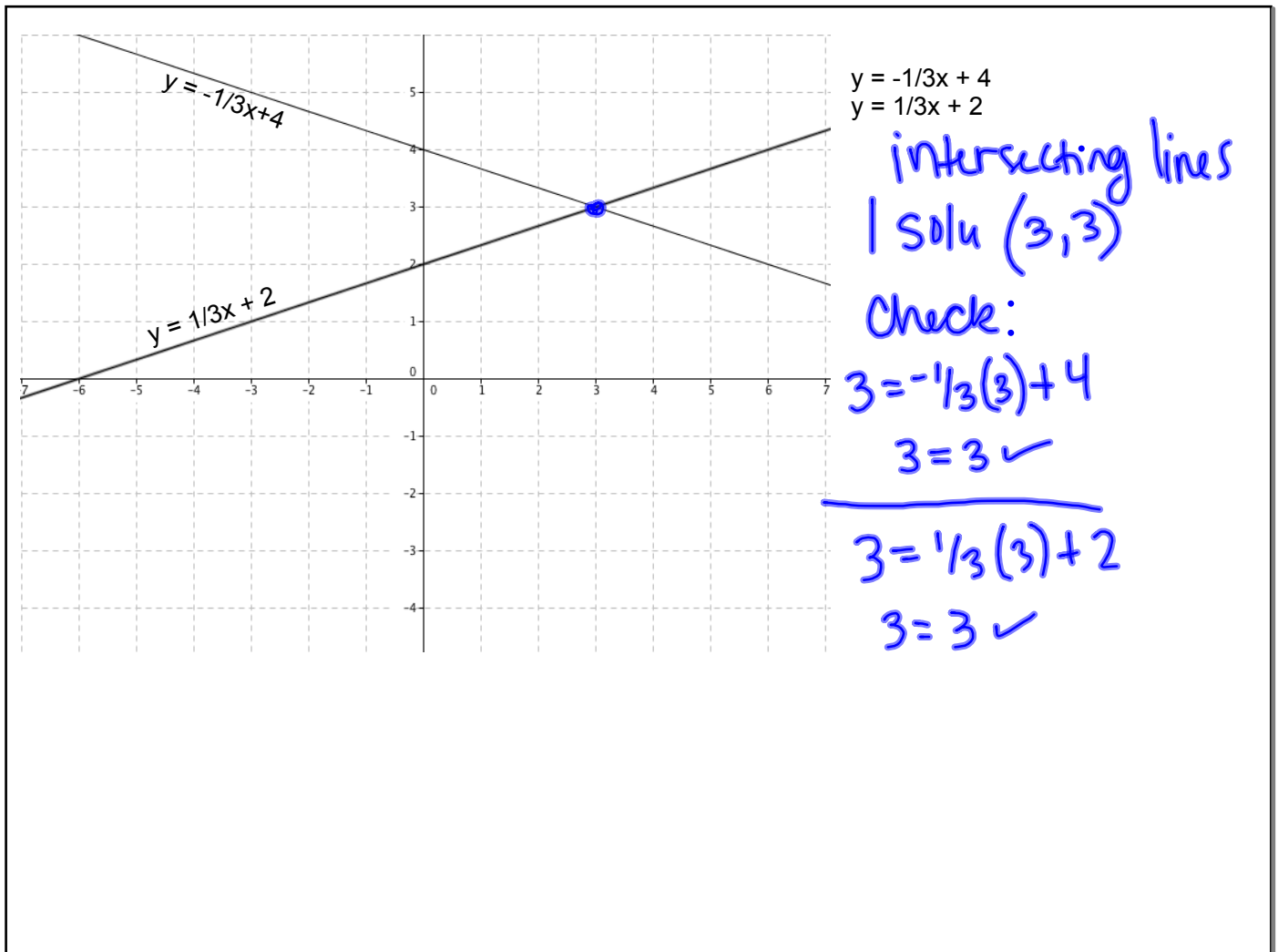


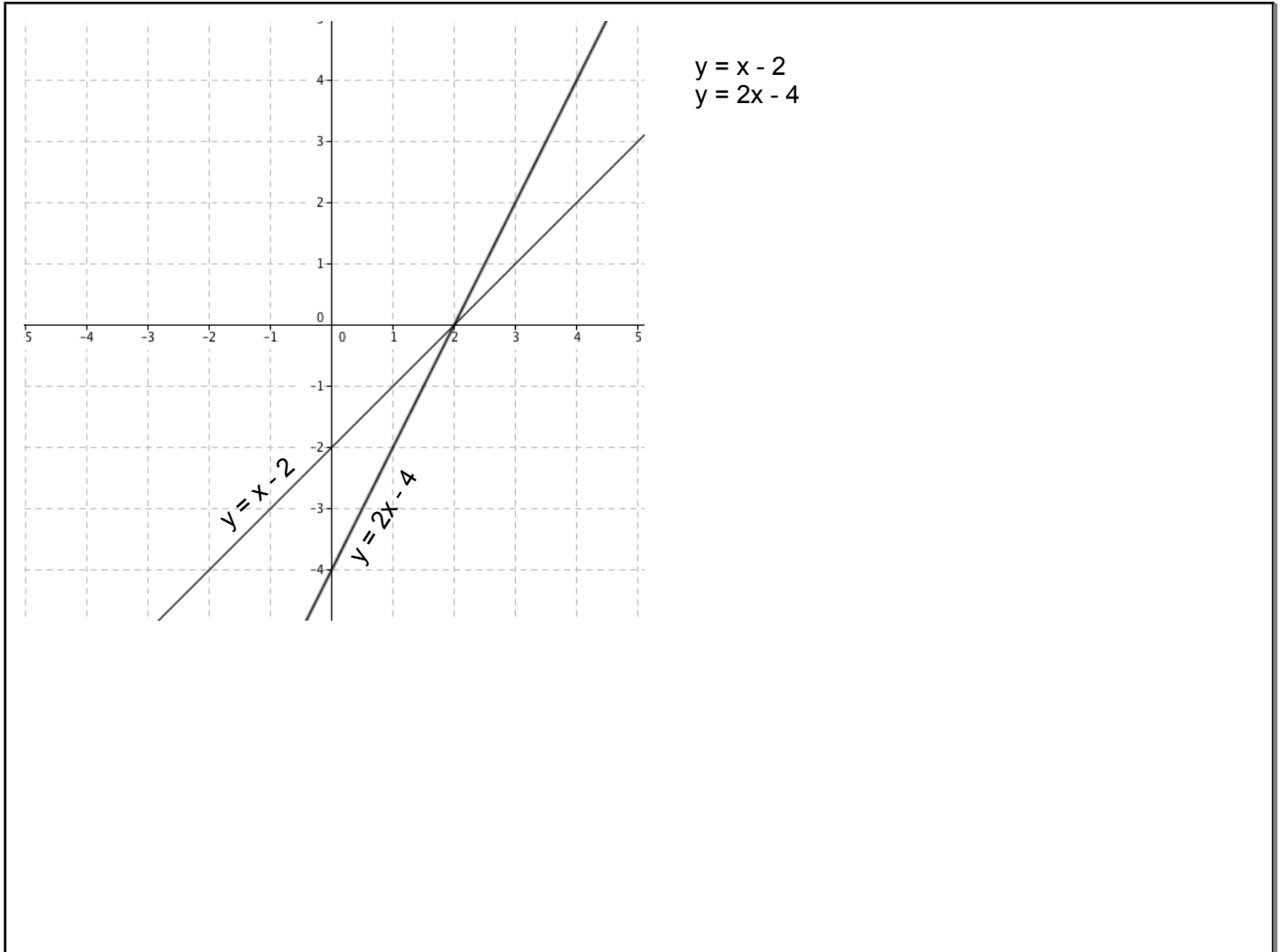
$$\begin{aligned}
 y &= 2x + 1 \\
 2y - 4x &= 2 \rightarrow \boxed{} \\
 \hline
 & + 4x + 4y \\
 \frac{2y}{2} &= \frac{2 + 4x}{2} \\
 \hline
 y &= 1 + 2x
 \end{aligned}$$

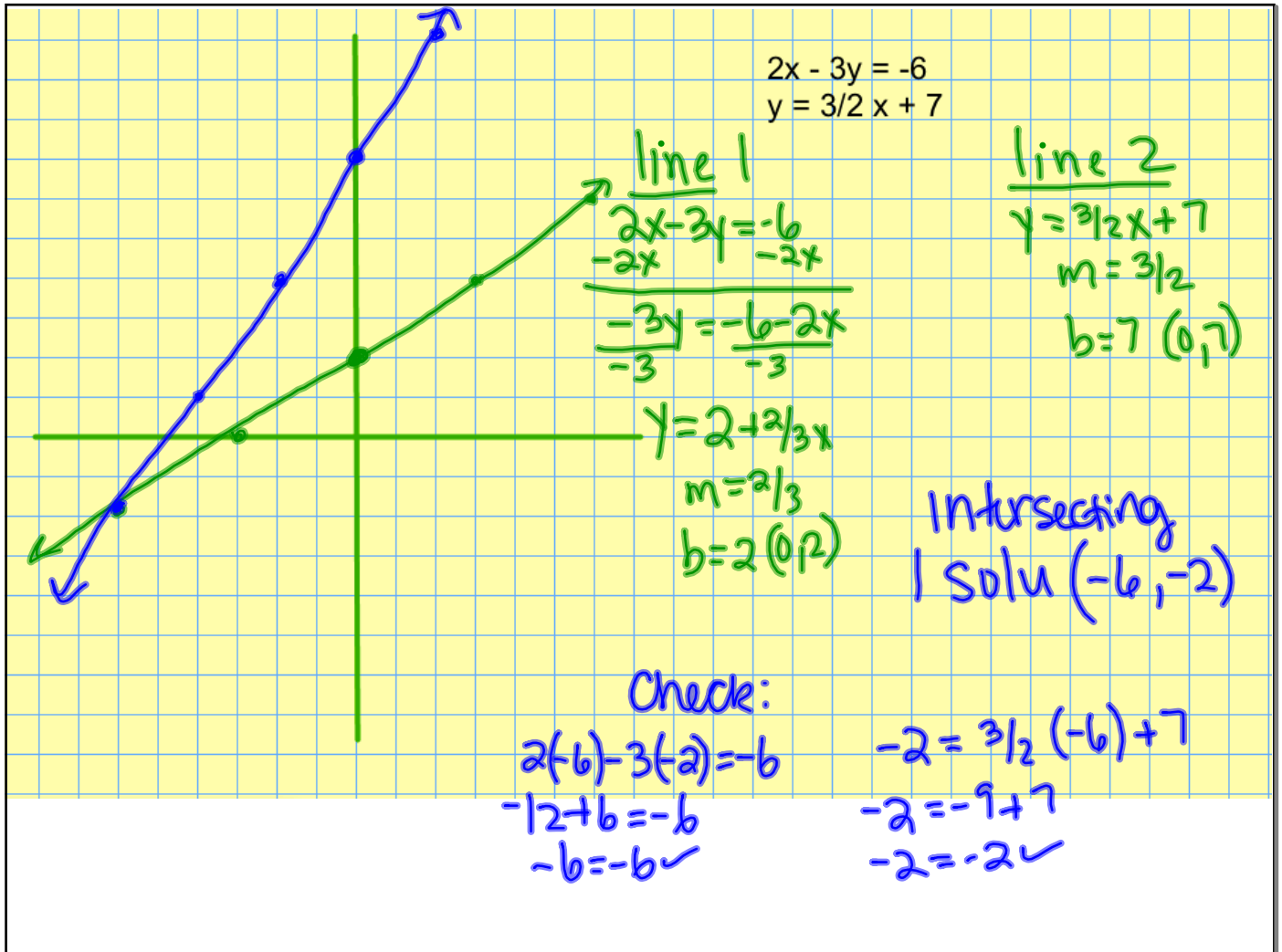
Same lines
infinitik solu.

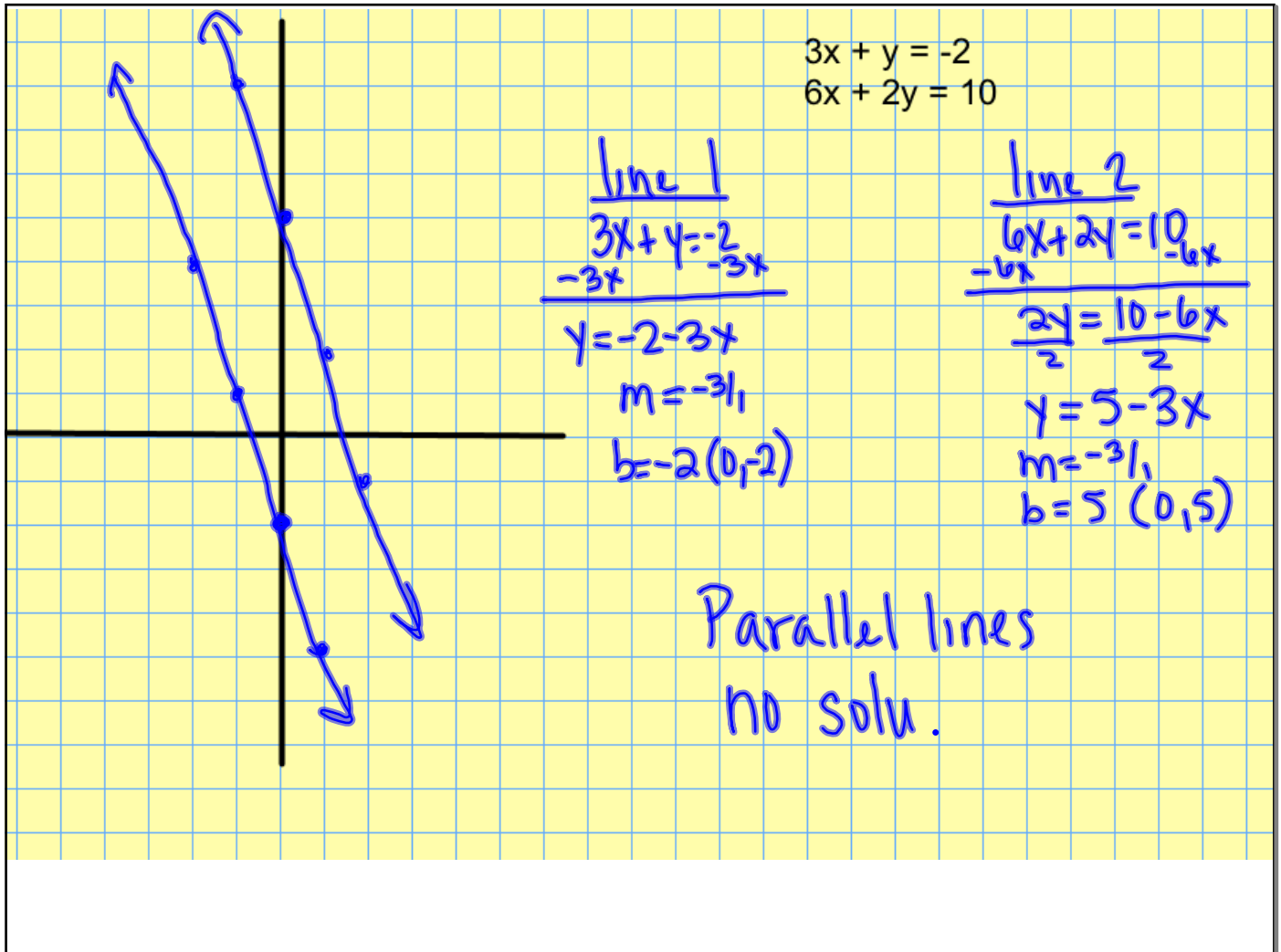
Solu: any pt on the line $y = 2x + 1$

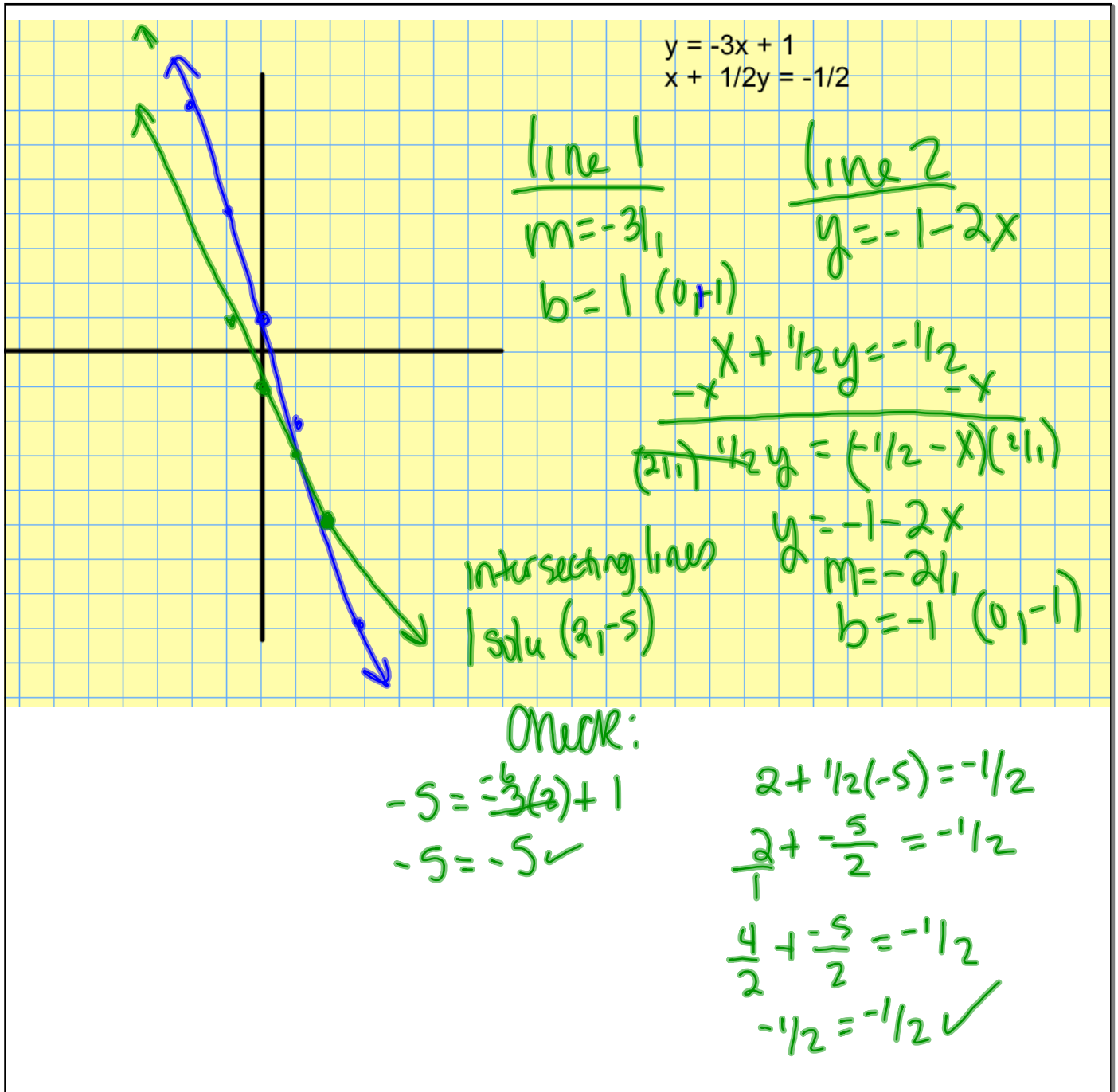
$$\begin{aligned}
 \text{check: } & (0, 1) \\
 1 &= 2(0) + 1 \\
 1 &= 1 \checkmark
 \end{aligned}$$

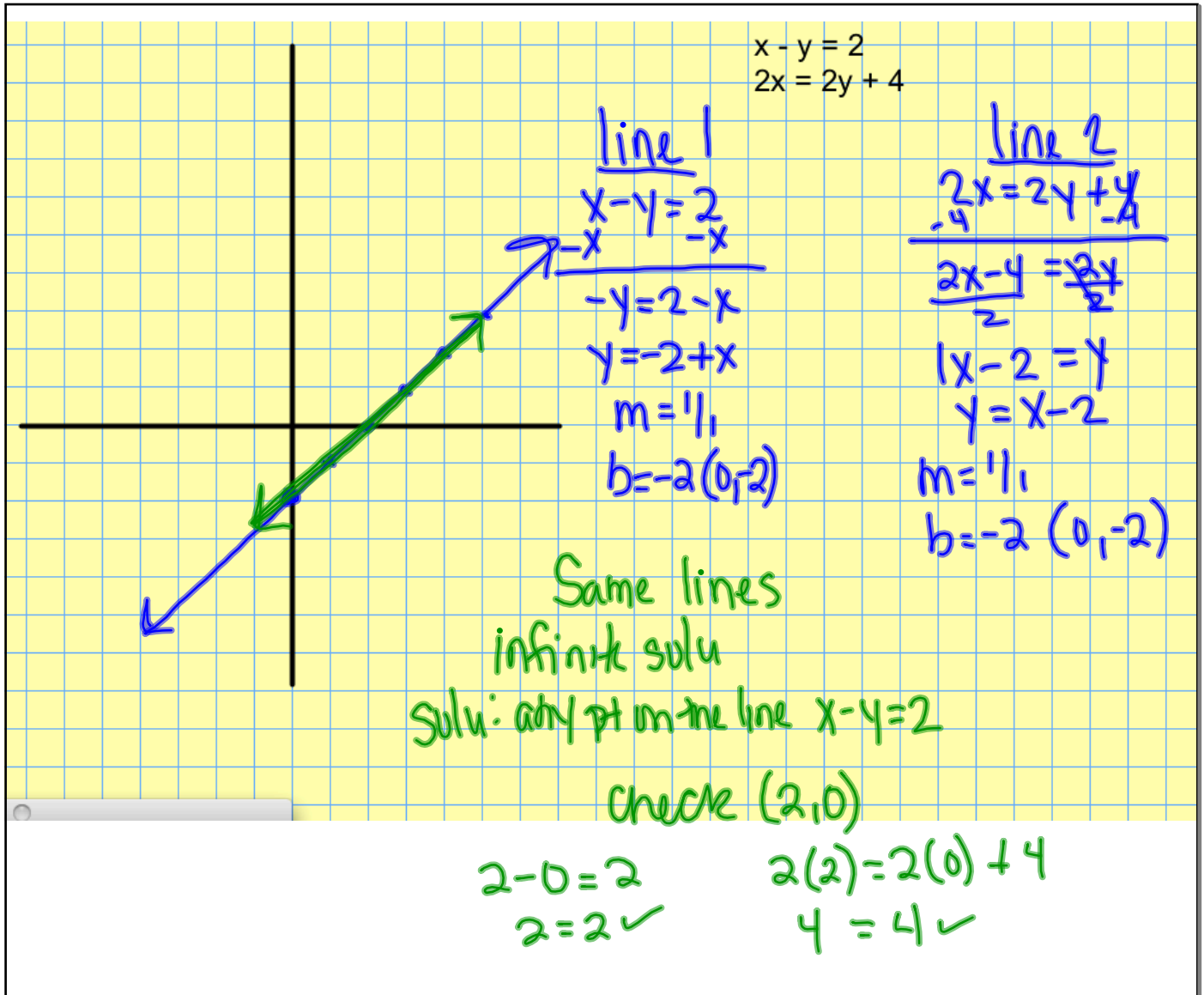












HW: pg. 372 #26 - 32 even #38

Graph the lines.

How many solutions?

What is the solution?

Check.