

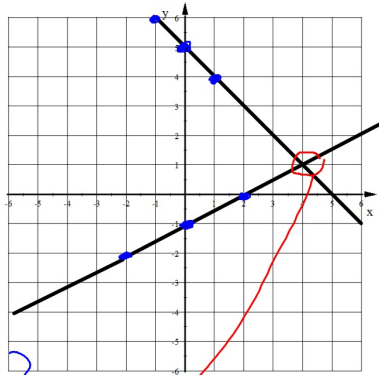
Graph this system of equations.

$$y = 0.5x - 1$$

$$y = -x + 5$$

WHAT IS
THE
SOLUTION?

the solution is the point (4,1)



System of linear equations:

Two or more lines on the same graph.

The solution to a system of linear equations is:

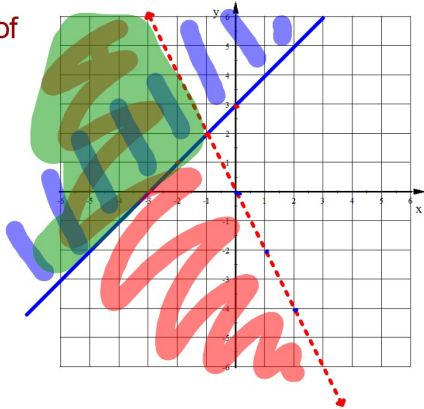
The point where the lines intersect

Graph this system of inequalities.

$$y < -2x$$

$$y \geq x + 3$$

the solution
is the area in
green

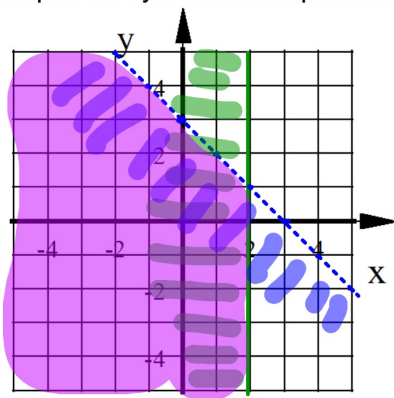


The solution to a system of linear inequalities is:

The area that gets shaded twice, once for each inequality.

In other words, the area where the two shadings overlap.

Graph this system of inequalities.

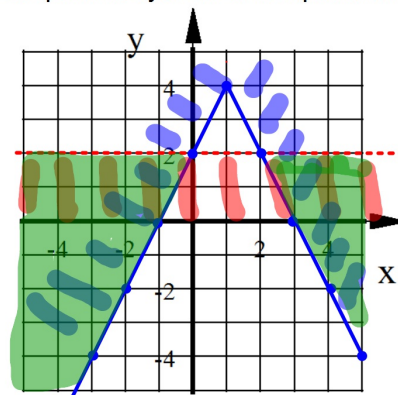


$y < -x + 3$ below this line

$x \leq 2$ to the left of this line

answer is in pink

Graph this system of inequalities.

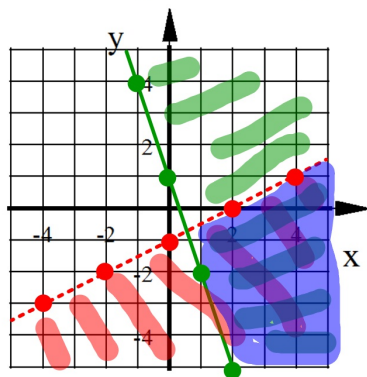


$y \geq -2|x - 1| + 4$ above the V

$y < 2$ below the line

answer is shaded in GREEN

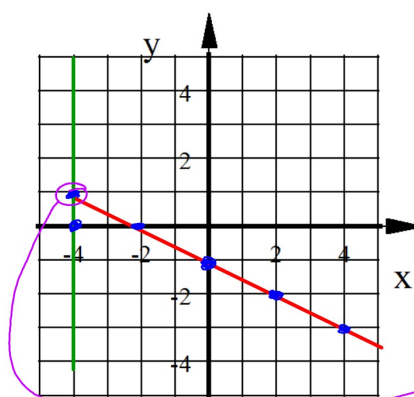
Write the system of inequalities shown in the graph.



$$y < \frac{1}{2}x - 1$$

$$y \geq -3x + 1$$

Find the solution to this system of equations by graphing.



$$x = -4$$

$$3x + 6y = -6$$

$$\begin{aligned} -3x & \quad -3x \\ 6y &= \frac{-3x - 6}{6} \end{aligned}$$

$$y = -\frac{1}{2}x - 1$$

→ solution is: $(-4, 1)$