

Chapter 7

Section 1

How can I solve systems by graphing?

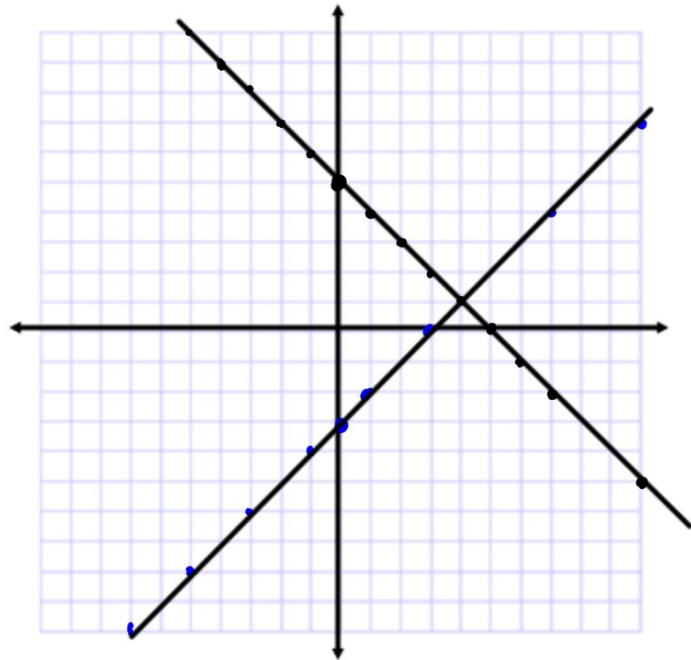


Remember, systems have 3 types of solutions:

- One solution
 - All Solutions
 - No Solutions
- } Consistent
- ← Inconsistent

$$1. \quad y = -x + 5$$
$$y = x - 3$$

$(4, 1)$



$$\begin{aligned} 2. \quad & y = x + 5 \\ & 2x + 2y = -8 \end{aligned}$$

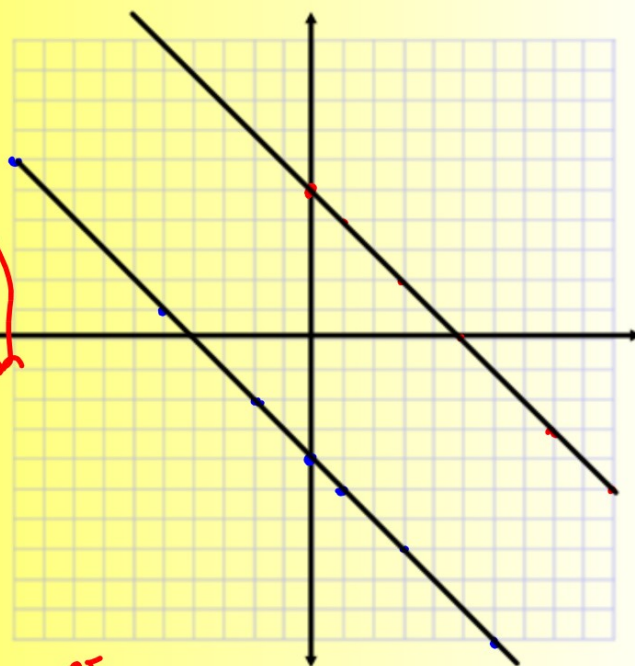
$$\begin{array}{r} 2x + 2y = -8 \\ -2x = -8 \\ \hline + 2y = -8 \\ + 2y = -8 \end{array}$$

$$\frac{2y}{2} = \frac{-2x - 8}{2}$$

$$y = -x - 4$$

No
Solution

SAME
SLOPE



$$3. \quad 2x + 2y = -8$$

$$\text{EQ2: } y = -x - 4$$

$$\begin{array}{r} 2x + 2y = -8 \\ -2x \qquad -2x \\ \hline 2y = -2x - 8 \\ \frac{2y}{2} = \frac{-2x}{2} - \frac{8}{2} \end{array}$$

$$\text{EQ1: } y = -x - 4$$

SAME
EQUATION

All
Solutions

