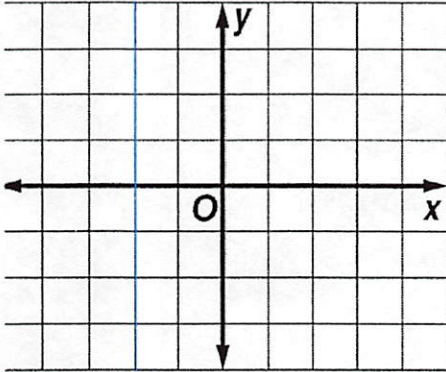


Notes 3.1A Solving Systems of Equations  
(linear and non-linear)

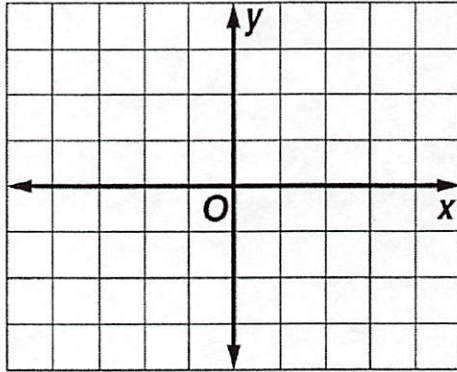
**Solve systems of equations:**

- What it means to solve a system of equations
- Graphing without a calculator.
- Graphing with a calculator.

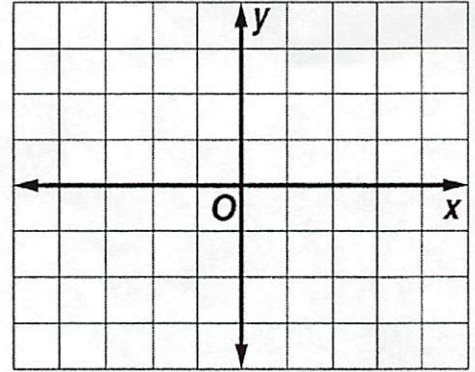
$$y = \frac{2}{3}x + 1$$



$$y = -2x + 3$$

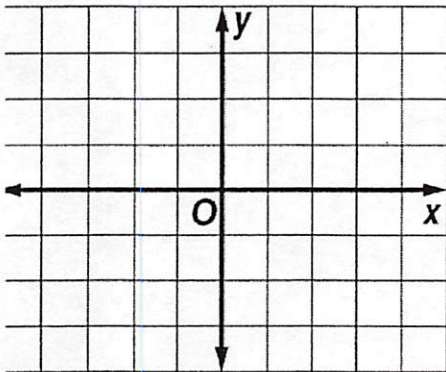


$$2x - 3y = 6$$

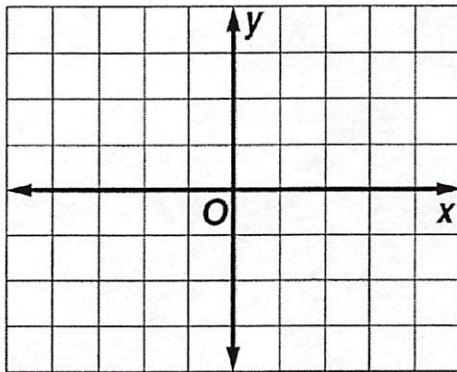


**Solve a system by graphing:**

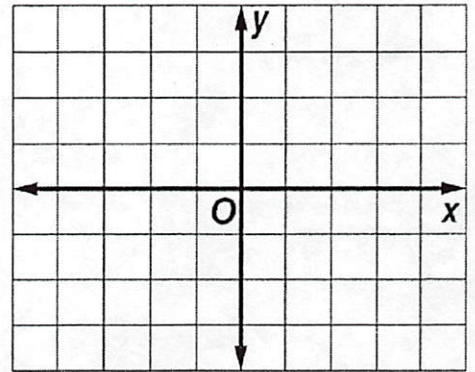
$$\begin{aligned} 4x + 2y &= 4 \\ 2x - 3y &= 10 \end{aligned}$$



$$\begin{aligned} 4x + y &= -2 \\ -6x - 3y &= 12 \end{aligned}$$

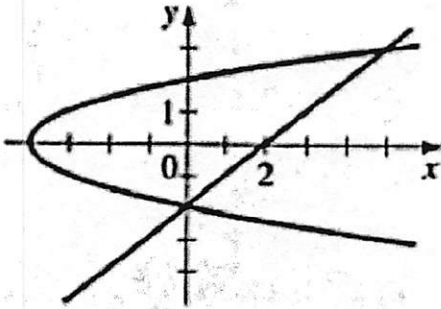


$$\begin{aligned} y &= 3x - 2 \\ 6x - 2y &= 4 \end{aligned}$$

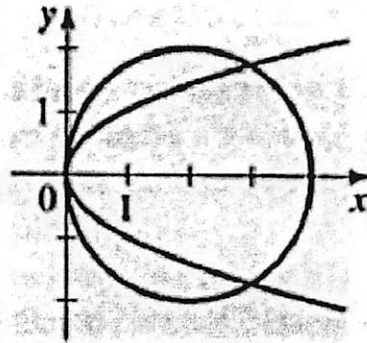


Solve a system by graphing (non-linear)

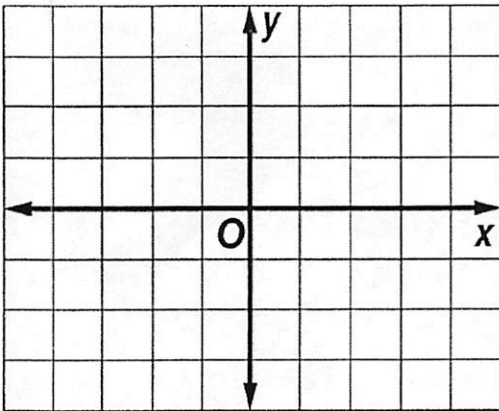
$$20. \begin{cases} x - y^2 = -4 \\ x - y = 2 \end{cases}$$



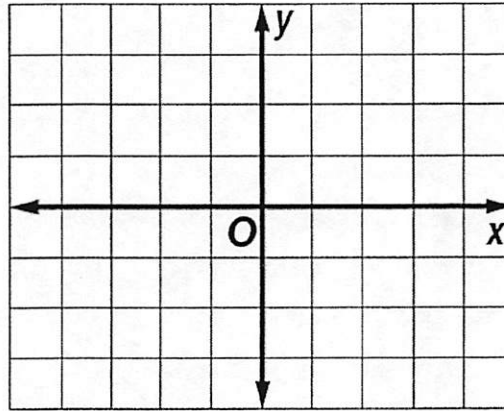
$$22. \begin{cases} x^2 + y^2 = 4x \\ x = y^2 \end{cases}$$



$$\begin{cases} x^2 + y = 1 \\ x - y = -3 \end{cases}$$



$$\begin{cases} x^2 + y = 0 \\ x^3 - 2x - y = 0 \end{cases}$$



$$\begin{cases} (x - 1)^2 + (y - 3)^2 = 4 \\ x - y = -4 \end{cases}$$

