

Please have your homework on your desk. Calculator? Yes!

Date:

TSW graph linear equations.

QRQ4: $y = mx + b$

Solve each equation for "y"

1 $x + y = 3$

$$\begin{array}{r} x + y = 3 \\ -x \quad -x \\ \hline y = -x + 3 \end{array}$$

2 $x - y = 7$

$$\begin{array}{r} x - y = 7 \\ -x \quad -x \\ \hline -y = -x + 7 \\ \hline y = x - 7 \end{array}$$

3 $2x + 3y = 9$

$$\begin{array}{r} 2x + 3y = 9 \\ -2x \quad -2x \\ \hline 3y = -2x + 9 \\ \hline \frac{3y}{3} = \frac{-2x + 9}{3} \\ y = -\frac{2}{3}x + 3 \end{array}$$

4 $-9x - 3y = 3$

$$\begin{array}{r} -9x - 3y = 3 \\ +9x \quad +9x \\ \hline -3y = 9x + 3 \\ \hline \frac{-3y}{-3} = \frac{9x + 3}{-3} \\ y = -3x - 1 \end{array}$$

5 $5x - 6y = 12$

$$\begin{array}{r} 5x - 6y = 12 \\ -5x \quad -5x \\ \hline -6y = -5x + 12 \\ \hline \frac{-6y}{-6} = \frac{-5x + 12}{-6} \\ y = \frac{5}{6}x - 2 \end{array}$$

Ex1 $x + y = 8$

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

$m = \frac{-1 \downarrow}{1 \rightarrow}$ $b = (0, 8)$

Ex2 $x - y = 8$

$$\begin{array}{r} x - y = 8 \\ -x \quad -x \\ \hline -y = -x + 8 \\ \hline \frac{-y}{-1} \quad \frac{-x}{-1} \\ y = x - 8 \end{array}$$

$m = \frac{1 \uparrow}{1 \rightarrow}$ $b = (0, -8)$

Ex3 $3x - y = -1$

$$\begin{array}{r} 3x - y = -1 \\ -3x \quad -3x \\ \hline -y = -3x - 1 \\ \hline \frac{-y}{-1} \quad \frac{-3x}{-1} \\ y = 3x + 1 \end{array}$$

$m = \frac{3 \uparrow}{1 \rightarrow}$ $b = (0, 1)$

Ex4 $-5x + y = -4$

$$\begin{array}{r} -5x + y = -4 \\ +5x \quad +5x \\ \hline y = 5x - 4 \end{array}$$

$m = \frac{5 \uparrow}{1 \rightarrow}$ $b = (0, -4)$

Ex5 $9x + 3y = 12$

$$\begin{array}{r} 9x + 3y = 12 \\ -9x \quad -9x \\ \hline 3y = -9x + 12 \\ \hline \frac{3y}{3} = \frac{-9x + 12}{3} \\ y = -3x + 4 \end{array}$$

$m = \frac{-3 \downarrow}{1 \rightarrow}$ $b = (0, 4)$

