

Check

Find the distance between parallel lines a and b with equations $x + 3y = 6$ and $x + 3y = -14$, respectively. Round to the nearest hundredth, if necessary.

$$y = mx + b$$
$$\begin{array}{c} -1 \downarrow \\ +3 \rightarrow -\frac{1}{3} \\ 1 \uparrow \\ -3 \leftarrow \end{array}$$

$$\begin{array}{r} -1x \quad -1x \\ \hline 3y = -\frac{1}{3}x + \frac{6}{3} \\ \hline y = -\frac{1}{3}x + 2 \end{array}$$
$$y = mx + b$$

$$\begin{array}{r} x + 3y = -14 \\ -1x \quad -1x \\ \hline 3y = -\frac{1}{3}x - \frac{14}{3} \\ \hline y = -\frac{1}{3}x - 4.7 \end{array}$$

*See graph of lines on the next page with all work..

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

$$y = -\frac{1}{3}x - 4.7$$

new
Slope
neg.
reciprocal
 $\frac{3}{1}$

