

Exercise 65

For the following exercises, find the point of intersection of each pair of lines if it exists. If it does not exist, indicate that there is no point of intersection.

$$y = \frac{3}{4}x + 1$$

$$-3x + 4y = 12$$

Solution

Solve the second given equation for y .

$$4y = 3x + 12$$

$$y = \frac{3}{4}x + 3$$

Because the slope of this line and that of the other line are both $3/4$, the lines are parallel. Therefore, there is no point of intersection.

