

7.4 Key Concepts 2 y-Intercept of a Line Worked Example

Example: Find the y -intercept of the line described by the equation $5x - 3y = -15$.

Solution: To find the y -intercept, set $x = 0$. Then, solve the equation for y .

$$\begin{aligned}5(0) - 3y &= -15 \\-3y &= -15 \\y &= \frac{-15}{-3} \\&= 5\end{aligned}$$

The y -intercept is 5.

Practice:

1. Find the y -intercept of the line described by the equation $-2x + 5y = -20$.

2. Find the y -intercept of the line described by the equation $3x - 7y = -21$.

Answers: 1. -4 2. 3