

23 Let $y = ax + b$. Then $x = -1 \Rightarrow y = 3$, and $x = 3 \Rightarrow y = -5$. This results in the following two linear equations. Subtract to eliminate b .

$$3 = a(-1) + b \Rightarrow \quad -a + b = 3$$

$$-5 = a(3) + b \Rightarrow \quad \underline{3a + b = -5}$$

$$-4a = 8 \Rightarrow a = -2 \text{ and } b = 3 + a = 3 - 2 = 1$$

Thus, the equation of the line is $y = -2x + 1$. The graph of this line and the points are shown in

Figure 23.

$[-8, 8, 1]$ by $[-8, 8, 1]$

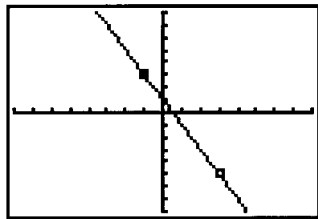


Figure 23