Question. Find the slope of a line through the points (-6, 4) and (3, -4).

Solution:

The equation of a straight line is usually written this way:

$$y = k \cdot x + b$$

Where:

k is the slope of the line.

b is the y-intercept of the line.

x is the independent variable of the function y = f(x).

Points (-6, 4) and (3, -4) must satisfy the equation of a straight line $y = k \cdot x + b$.

Therefore,

$$\begin{cases} 4 = -6k + b \\ -4 = 3k + b \end{cases} \qquad 8 = -9k => k = -\frac{8}{9}.$$