

QUESTION:

What is the slope of this perpendicular line?

$$5x+3y=1$$

SOLUTION:

Let's solve this equation for y:

$$5x + 3y = 1$$

$$3y = -5x + 1$$

$$y = -\frac{5}{3}x + \frac{1}{3}$$

So, the slope of this line is $m_1 = -\frac{5}{3}$. The slope m_2 of line, perpendicular to this can be found from equation:

$$m_1 m_2 = -1,$$

hence

$$m_2 = \frac{3}{5}$$

ANSWER: $\frac{3}{5}$