Answer on Question #79029–Math– Geometry

Question

Determine the slope of the line that contains the points G(8,1) and H(8,-6)

Solution

Note that the points G(8,1) and H(8,-6) have the same first coordinates (x-coordinate), hence we get vertical line with equation x=8 and the slope for the vertical line undefined.

In other words, the slope k of the line that contains the points $(x_1; y_1)$ and $(x_2; y_2)$ define by formula $k = \frac{y_2 - y_1}{x_2 - x_1}$. In our case for the points G(8,1) and H(8,-6) we get

 $k = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-6 - 1}{8 - 8} = \frac{-7}{0}$ with denominator 0, so this line does not have the slope; the slope undefined.

Answer: this line does not have the slope; the slope undefined.