## Answer on Question \#79029-M ath- Geometry Question

Determine the slope of the line that contains the points $\mathrm{G}(8,1)$ and $\mathrm{H}(8,-6)$

## 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 $\left(x_{1} ; y_{1}\right)$ and $\left(x_{2} ; y_{2}\right)$ define by formula $k=\frac{y_{2}-y_{1}}{x_{2}-x_{1}}$. In our case for the points $\mathrm{G}(8,1)$ and $\mathrm{H}(8,-6)$ 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.

