Slope:

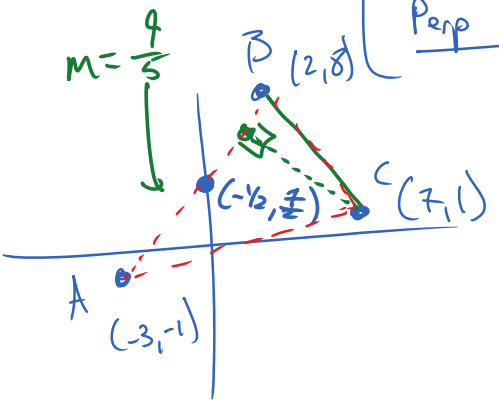
$$\frac{\Delta y}{\Delta x} = \frac{\text{Rise}}{\text{Run}} = \frac{y_2 - y_1}{x_2 - x_1}$$

Horizontal lines: $m = 0 = \frac{0}{\#}$

Vertical lines: $m = \emptyset = \frac{\#}{0}$

Parallel lines: same slope

Perp lines: opp Reciprocal slopes



$m_{\overline{BC}} = -\frac{7}{5}$

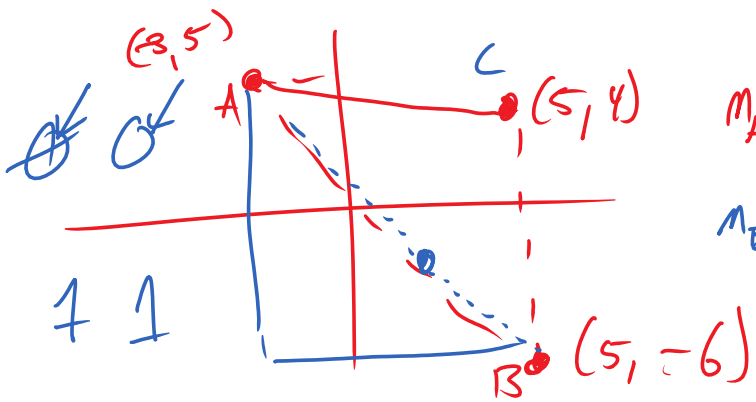
slope of the alt. from C: $-5/9$

slope of the Median From C: $\frac{5/2}{-15/2} = -\frac{1}{3}$

slope of a line Through B ∥ to $\overline{AC}$: $\frac{1}{5}$

$$\frac{1 - 7/2}{7 - (-1/2)} = \frac{-5/2}{15/2} \quad \cancel{-\frac{5}{2}} \cdot \cancel{\frac{2}{15}} \quad \frac{-1}{3}$$

★ midpt $\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$



$m_{AB} = \boxed{\frac{-11}{8}}$

$m_{BC} = \frac{-10}{0} = \emptyset$