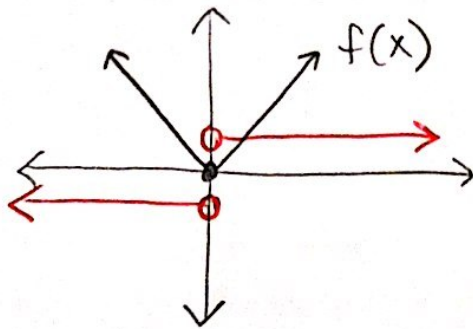


x)

$$y = |x|$$



$$\lim_{h \rightarrow 0^+} \frac{|x+h| - |x|}{h}$$

$$= \frac{|0+h| - 0}{h}$$

$$= \frac{|h|}{h} = 1$$

\neq

$$\lim_{h \rightarrow 0^-} \frac{|h|}{h} = -1$$

- ∴ A function is not differentiable at a point at which a graph has a sharp turn or a vertical tangent

★ Whiteboard Practice