

Question #74270, Math / Other

If $f(x)=x^2$ find $\lim_{h \rightarrow 0} \{f(x+h)-f(x)\}/h$

Answer.

$$\lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h} = \lim_{h \rightarrow 0} \frac{(x+h)^2 - x^2}{h} = \lim_{h \rightarrow 0} \frac{2xh + h^2}{h} = 2x$$

Answer provided by <https://www.AssignmentExpert.com>