

## Answer to Question #91485 – Math – Calculus

$$\begin{aligned}& \lim_{x \rightarrow 0} \frac{(x+3)^2 - 9}{2x} \\&= \lim_{x \rightarrow 0} \frac{x^2 + 9 + 6x - 9}{2x} \\&= \lim_{x \rightarrow 0} \frac{x^2 + 6x}{2x} \\&= \lim_{x \rightarrow 0} \frac{x(x+6)}{2x} \\&= \lim_{x \rightarrow 0} \frac{(x+6)}{2}\end{aligned}$$

Applying limit and Put  $x = 0$ ;

$$\begin{aligned}&= \frac{(0+6)}{2} \\&= 3.\end{aligned}$$