

Thursday - December 4, 2014

$$\lim_{h \rightarrow 0} \frac{\left((x+h)^2 + 3(x+h) - 5 \right) - \left(x^2 + 3x - 5 \right)}{h}$$

$$\frac{\cancel{x^2} + \cancel{2xh} + \cancel{h^2} + \cancel{3x} + \cancel{3h} - \cancel{5} - \cancel{x^2} - \cancel{3x} + \cancel{5}}{h}$$

$$2x + h + 3$$
$$f'(x) = 2x + 3$$

$$\frac{(x+h)^2}{(x+h)(x+h)}$$
$$x^2 + \underline{xh} + \underline{xh} + h^2$$