**12H Second Derivatives**

1. Find $\frac{dy}{dx}$ and $\frac{d^{2}y}{dx^{2}}$ of the following:

$$y=3x^{5}+\frac{4}{x^{2}}$$

1. Find $f^{'}(x)$ and $f^{''}(x)$ of the following:

$$f\left(x\right)=3\sqrt{x}+\frac{1}{2x}$$