

## 1 3.2: Derivative Rules

### Derivative Rules:

If  $f$  and  $g$  are differentiable functions, then...

$$\frac{d}{dx}(x^n) =$$

$$\frac{d}{dx}(cf(x)) =$$

$$\frac{d}{dx}(f(x) \pm g(x)) =$$

$$\frac{d}{dx}(f(x) \cdot g(x)) =$$

$$\frac{d}{dx} \left( \frac{f(x)}{g(x)} \right) =$$

### Examples:

Compute the derivative of  $f(x) = \frac{2\sqrt{x} - 1}{\sqrt[3]{x} + 1}$ .

