

### Fundamental Rules of Derivatives

1. Find the derivative of the following function.

$$f(x) = x^{0.7}$$

2. Find the derivative of the following function.

$$g(r) = \frac{2}{3}\pi r^3$$

3. Find the derivative of the following function.

$$f(x) = \frac{1}{\sqrt[3]{x}}$$

4. Find the derivative of the following function.

$$f(x) = 5x^3 - 2x^2 + 2$$

5. Find the derivative of the following function.

$$f(x) = \frac{2x^3 + 4x^2 + 3x - 2}{x}$$

6. Find the derivative of the following function.

$$f(x) = 2x^2 + \sqrt{x^3}$$

7. Find the equation of the line tangent to the graph of the given function at the given point.

$$f(x) = -\frac{5}{3}x^2 + 2x + 2 \text{ at } \left(-1, -\frac{5}{3}\right)$$