

## PRACTICE PROBLEMS 1 SOLUTIONS

Find the derivatives of the following functions:

$$f(x) = 3x^5 - 2x^3 + 5x + 1$$

$$15x^4 - 6x^2 + 5$$

$$f = 4\sqrt{x} + x^3 - 3x$$

$$2x^{\frac{1}{2}} + 3x^2 - 3$$

$$A = 4x^7 - \frac{2}{x}$$

$$28x^6 + 2x^{-2}$$

$$S = 3t^4 - \sqrt{t}$$

$$12t^3 - \frac{1}{2\sqrt{t}}$$

$$L = s(s^3 + 3)$$

$$4s^3 + 3$$

$$P = (a^4 + 2a^2 + 1)^{10}$$

$$10(a^4 + 2a^2 + 1)^9(4a^3 + 4a)$$

$$R = \sqrt{(y^3 - 3)}$$

$$\frac{1}{2}(y^3 - 3)^{\frac{1}{2}}(3y^2)$$