

## Section 4.2 Worksheet

Find the derivatives of the following functions

$$1. \ f(x) = (1 + \sqrt{x})x^3$$

$$2. \ g(t) = \left(\frac{2}{t} + t^5\right)(t^3 + 1)$$

$$3. \ h(y) = \frac{1}{y^3 + 2y + 1}$$

$$4. \ g(z) = \frac{z^2 + 1}{z^3 - 5}.$$