Find the derivatives of the given functions.

1.
$$f(x) = 3x^5 - 7x^2 + 4x + 1$$

$$2. \qquad g(x) = \frac{2}{x^3} + x$$

$$3. \qquad y = \frac{1}{5x}$$

$$4. g(x) = \sqrt{x} + \sqrt{2}$$

$$5. \quad h(x) = \frac{x}{2+\pi}$$

Find the derivatives of the given functions.

1.
$$f(x) = 4x^4 - 2x^3 - x + 1$$

$$2. y = \frac{1}{3x^3}$$

$$3. \quad f(x) = 10\sqrt{x} + 5x$$

$$4. \qquad g(x) = \frac{1}{\sqrt[3]{x^2}}$$

$$5. \qquad h(x) = \frac{x + \pi^2}{2}$$