

Differentiation Practice 1

Find the first derivative, $\frac{dy}{dx}$, for the following functions.
Write x^n as $x^{\wedge}n$.

1. $y = x^4 + x^3$

$$\frac{dy}{dx} =$$

2. $y = 3x^2 - 5x^4$

$$\frac{dy}{dx} =$$

3. $y = 7x^6 + 9x^2$

$$\frac{dy}{dx} =$$

4. $y = 6x^5 - \frac{8}{11}x^4$

$$\frac{dy}{dx} =$$

5. $y = 12x^3 + \frac{2}{3}x^8$

$$\frac{dy}{dx} =$$

6. $y = -10x^{12} - 8x^{10}$

$$\frac{dy}{dx} =$$

7. $y = 4x^2 - 12x^3 + 5x^4$

$$\frac{dy}{dx} =$$