

The Chain Rule

WS 3

Directions: find $\frac{dy}{dx}$

$$1) y = 4e^{x^2} - \cos^2(2x)$$

$$2) y = \frac{\tan^3(3x)}{\sqrt{5x^3}}$$

$$3) y = e^{\sin(x^2)}$$

$$4) y = \frac{\ln(2x)}{\sec^3(4x)} + \frac{1}{\sqrt[3]{2x^2}}$$

$$5) y = (\log_3 6x)^3 + 3x \cot(x^2)$$

$$6) y = \cos(\sin x) + \frac{\ln(3x^2)}{2^{3x}}$$

$$7) y = e^{\tan^2(2x)} - \tan(\sec(3x))$$