

Math 2215 - Calculus 1

Quiz #7 - 2005.09.22

Solutions

1. Compute $\frac{d}{dx} \sqrt[5]{\sin(x^3 + 7)}$.

$$\frac{d}{dx} \sqrt[5]{\sin(x^3 + 7)} = \frac{1}{5} (\sin(x^3 + 7))^{-\frac{4}{5}} \cdot \cos(x^3 + 7) \cdot 3x^2$$

2. Compute $\frac{d}{dw} (\cos(w)e^{w^2} + w^3)$.

$$\frac{d}{dw} (\cos(w)e^{w^2} + w^3) = -\sin(w)e^{w^2} + 2w \cos(w)e^{w^2} + 3w^2$$