

Math 2143 - Brief Calculus with Applications

Quiz #3 - 2008.02.17

Solutions

Compute the following derivatives:

1. $\frac{d}{dx} (3x^2 - 4x + 7)$

$$\frac{d}{dx} (3x^2 - 4x + 7) = 6x - 4$$

2. $\frac{d}{dw} (3w^2 - 4w + 7)$

$$\frac{d}{dw} (3w^2 - 4w + 7) = 6w - 4$$

3. $\frac{d}{dx} \left(-4x^{\frac{1}{4}} + \sqrt{x} - 3\sqrt[5]{x} \right)$

$$\frac{d}{dx} \left(-4x^{\frac{1}{4}} + \sqrt{x} - 3\sqrt[5]{x} \right) = -x^{-\frac{3}{4}} + \frac{1}{2\sqrt{x}} - \frac{3}{5}x^{-\frac{4}{5}}$$