

Math 2215 - Calculus 1

Quiz #8 - 2011.02.23

Solutions

Compute the following derivatives.

1. $\frac{d}{dx} \sin(2x) \cos(3x)$

$$\frac{d}{dx} \sin(2x) \cos(3x) = 2 \cos(2x) \cos(3x) - 3 \sin(2x) \sin(3x)$$

2. $\frac{d}{dz} \frac{3 + \sin(4z)}{z \cos(z)}$

$$\frac{d}{dz} \frac{3 + \sin(4z)}{z \cos(z)} = \frac{4 \cos(4z) z \cos(z) - (3 + \sin(4z))(\cos(z) - z \sin(z))}{(z \cos(z))^2}$$