Chain Rule ws 3

1) $\frac{dy}{dx} = (4e^{x^2})(2x) - (2\cos(2x))(-\sin(2x))(2)$

2) $\frac{dy}{dx} = \frac{\left[(3\tan^2(3x))(\sec^2(3x))(3)\right](\sqrt{5x^3}) - \left[\left(\frac{1}{2}(5x^3)^{-1/2}\right)(15x^2)\right](\tan^3(3x))}{5x^3}$

3) $\frac{dy}{dx} = e^{\sin(x^2)} \cdot \cos(x^2)(2x)$

4) $\frac{dy}{dx} = \frac{\left[\left(\frac{1}{2x}\right)(2)\right](\sec^3(4x)) - \left[3\sec^2(4x)(\sec(4x)\tan(4x))(4)\right](\ln(2x))}{\sec^6(4x)}$

$+ \left(-\frac{1}{3}(2x^2)^{-4/3}(4x)\right)$

5) $\frac{dy}{dx} = 3(\log_3 6x)^2\left(\frac{1}{6x \cdot \ln 3}\right)(6) + (3)\cot(x^2) + \left[(-\csc(x^2)\cot(x^2))(2x)\right](3x)$

6) $\frac{dy}{dx} = \left[-\sin(\sin x)\right](\cos x) + \frac{\left[\left(\frac{1}{3x^2}\right)(6x)\right](2^{3x}) - \left[(2^{3x} \cdot \ln 2)(3)\right](\ln(3x^2))}{2^{6x}}$

7) $\frac{dy}{dx} = e^{\tan^2(2x)} \cdot (2\tan(2x))(\sec(2x)\tan(2x))(2)$

$-\left[\sec^2(\sec(3x))(\sec(3x)\tan(3x))(3)\right]$