Calculator Practice WS

Directions: With a calculator, a) graph each function b) find the x-intercepts of each function and c) find the slope of the tangent line @ the indicated x-value.

1) $f(x) = x^4 - 3x^3 - 5x^2 - 2x + 1$; $x = 3$

2) $f(x) = x^2 e^x$; $x = -2$

3) $f(x) = \frac{x^2 - 9}{x^2 - 16}$; $x = 4$

4) $f(x) = -x^{5/3} + 3x^{2/3}$; $x = 0$

5) $f(x) = e^{-x^2/2}$; $x = 0$

6) $f(x) = \sin^3 x \cos^2 x$ on $[-\pi, \pi]$; $x = -\frac{\pi}{2}$