Quiz 4A - MTH 1410

Name: _____

1) (4 points) Use logarithmic differentiation to find $\frac{dy}{dx}$ if $y = x^{\sqrt[4]{x}}$.

2) (3 points) Find $f'(x)$ if $f(x) = \sin(\arccos x)$. Simplify your answer.

3) (3 points) A stone is thrown vertically upward and its height after t seconds in $96t - 16t^2$. Use calculus to find the maximum height reached by the stone.