

Math 2250 Quiz 5.5 (Practice)

Name _____ Section _____

Points will be deducted for untidy or disorganized answers

1. (2 points) Use *logarithmic differentiation* (or otherwise if you are brave enough) to find

$$\frac{d}{dx} \sqrt[3]{\frac{x(x+1)(x-2)}{(x^2+1)(2x+3)}}$$

2. (3 points) Find the derivative of y with respect to x when

- (a) $y = 2^x \log_3(\sin x)$
- (b) $y = \ln(\cos^{-1} x)$
- (c) $y = \tan^{-1}(x^2)$