

Homework 3

Name:

Date: May 28, 2015

P 1. Using the basic rules and general properties of derivatives find the derivative of

$$f(x) = \frac{x^2 \cos x}{x^2 e^x + 3} - 7 \ln x + 14 \tan x$$

Show your work!

P 2. Find an equation for the tangent line to the graph of the equation $y = x^2 - 9x + 2$ at $x = 0$.

P 3. Find an equation for the perpendicular to the tangent line to the graph of the equation $y = x \sin x$ at $x = \pi/4$.