

Math 121

FINAL EXAM

NAME

I. Definitions, theorems, and the like

1. (10 pts.) Define formally what we mean when

4. (5 pts.) The function $f(x) = x^2 - 2$ has $f(1) = -1$ and $f(2) = +2$. How do we know that

Problem II.1 continued: Find derivatives of

$$\sin(x)$$

$$\arctan(x)$$

$$e^{\sin(x)}$$

2. (10 pts.) Find the equation of the line perpendicular to the curve $x^2 + y^2$

(problem III.1 continued)

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