

Math 161

09/05/14

Quiz 1

20 Minutes

Name: _____

Student ID: _____

Show all work to receive full credit.

Cross out all work you don't want graded.

Circle your final answer.

1. Graph the function

$$f(x) = -\sqrt{x-3} + 1$$

by starting with the graph of one of the standard functions and then applying the appropriate transformations. State the domain of f .

2. Evaluate the limit

$$\lim_{x \rightarrow -3} \frac{x^2 + 4x + 3}{x^2 - 9}$$

3. Prove that

$$\lim_{x \rightarrow 0} x^8 \cos\left(\frac{\pi}{x}\right) = 0.$$