

Name: \_\_\_\_\_

Section: \_\_\_\_\_

# Math 120 C, E

# Quiz 2

# October 14, 2004

Show all work for full credit.

1. (5 points) Use a sentence or mathematical notation to describe the domain of the following function:

$$h(x) = \sqrt{x+2} - \frac{x^2}{x^2-9}$$

2. (5 points) Let

$$f(x) = \begin{cases} 3x & \text{if } x < 2, \\ x^2 + 2 & \text{if } x \geq 2 \end{cases}$$

Solve the equation  $f(x) = 8$  for  $x$ .