

Math 1A
Quiz 1 - September 2, 2009

Name:

1. Find the domain of the following functions: (Write your answers in interval or set notation)

(a) $h(x) = \frac{3x + |x|}{x}$

(b) $f(u) = \sqrt{u+2} + \sqrt{u+3}$

(c) $g(x) = \ln(-x^2 - x + 6) + \frac{1}{x}$

2. Sketch a graph of the following function:

$$f(x) = \begin{cases} e^x + 2 & \text{if } x \leq 0 \\ x + 3 & \text{if } 0 < x \leq 1 \\ \sin(x - 1) & \text{if } x > 1 \end{cases} .$$