

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

**Math 32, Spring 2010, Section 101**  
**Quiz 5**

(1) (3 pts) Find the domains of the following functions.

a)  $f(x) = \frac{1}{2^{x-1}}$

b)  $g(x) = \frac{1}{2^x - 1}$

(2) (3 pts) Graph the curve  $y = (x + 1)^2(x - 1)(x - 3)$ . Give the coordinate(s) of any  $x$ -intercepts,  $y$ -intercepts, and any vertical or horizontal asymptotes.

**(3)** (4 pts) Graph the curve  $y = \frac{3x^2}{(x-1)(x+3)}$ . Give the coordinate(s) of any  $x$ -intercepts,  $y$ -intercepts, and any vertical or horizontal asymptotes.