

Quiz 6

November 20, 2002

Name _____

1. The percentage of households between 1980 and 1996 with VCRs can be modeled by the equation

$$P(t) = \frac{77.9}{1 + 39.5e^{-0.4984t}}$$

percent where t is the number of years since 1980. Use this equation to find $P'(7)$ numerically.

2. Consider the function $g(t) = -6t^2 + 7$. Use the algebraic method to find $\frac{dg}{dt}$ at $t = 4$ by evaluating the limit of an expression for the slope of a secant line.