

MATH 162 QUIZ, Spring 2007

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

1. For which values of  $k$  is  $y = e^{kt}$  a solution of the equation  $y'' + y' - 6y = 0$ ?

Ans: \_\_\_\_\_.

2. Given the differential equation  $\frac{dy}{dt} = 3y[y - 10]$ .

a) For which values is  $y$  decreasing?

b) Sketch a qualitative solution of the equation with initial conditions  $y(0) = 8$ ?

Ans: \_\_\_\_\_.

Extra Space