

**Math 325: Differential Equations** Name: \_\_\_\_\_

**Quiz 1** *January 26, 2001*

You may use your own calculator. You may not use anything else. You may not pass a calculator to another person.

Show all your work. Erase or cross out any work you do not want graded.

a) Find the general solution of  $y^{iv} - 10y'' + 9y = 0$ .

b) Determine a suitable form for a particular solution  $Y(t)$  of

$$y^{iv} - 10y'' + 9y = 7e^{-t} + \sin t - t^2.$$

(Do **NOT** evaluate the constants.)