

MATH 3430-02 QUIZ 7

Name: _____

Suppose that a free ‘mass on a spring’ system obeys the following ODE:

$$y'' + Ay' + 10y = 0.$$

i. When $A = 2$, what is the actual frequency of a solution? (Note that the actual frequency is $\omega_0/2\pi$.)

ii. How large should A , the damping constant, be in order for all solutions to be non-oscillatory?