

Name _____
Student I.D. _____

Math 2250-1
Quiz 2
August 31, 2012

1) Consider the differential equation for $x(t)$:

$$x'(t) = -4x + 80.$$

a) Is this differential equation separable, linear, neither separable nor linear, or both? Explain.

(2 points)

b) Solve the following initial value problem:

$$\begin{aligned}x'(t) &= -4x + 80 \\ x(0) &= 15.\end{aligned}$$

(8 points)