

Math 2250-1 Week 3 Quiz

Name and Unid: SOLUTION _____

Write your answer in the space provided. Show work for full credit.

1. (10 points) Solve the first order linear IVP

$$y'(x) + \sin(x)y(x) = \sin(x), \quad y(\pi/2) = 3.$$

2. (10 points) Find the equilibrium points x^* and stability of each, for the following DE:

$$\frac{dx}{dt} = \sin(x)$$