

Math 202-08

Quiz 2

Name:.....ID.....

Exercise: Consider the differential equation

$$x(x - 1)y'' + xy' + y \sin x = 0$$

- a) Classify all the points x as to whether they are ordinary, regular singular points or irregular singular points.
- b) Find the first four non zero terms of a series solution of the differential equation about the point $x_0 = 0$.