

Quiz #2 (EngMath I) [Thursday, Sept. 27, 2018]

Name: _____ **Dept:** _____ **ID No:** _____

1. (10 points) Solve the following initial value problem:

$$x^2 y'' + xy' = x^2 \ln x, \quad (x > 0), \quad y(1) = 2, \quad y'(1) = 0.$$

2. (15 points) Solve the following initial value problem:

$$y''' - 3y'' + 3y' - y = 24(x + 1)e^x, \quad y(0) = 1, \quad y'(0) = 2, \quad y''(0) = 7.$$