QUIZ 6 - MATH 152   Friday, October 18
YOUR NAME:_____   George Voutsadakis

Read each problem **very carefully** before starting to solve it and do only what is asked. Each problem is worth around 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. [6 points] Solve the initial value problem

$$(\ln y)y' - ty = 0, \quad y > 0, \quad y(2) = 1.$$

(You may leave your answer in implicit form.)

2. [6 points] Solve the initial value problem

$$(1 + x^2)y' = xy, \quad y > 0, \quad y(1) = 3\sqrt{2}.$$

(Recall, from logarithms, the identity $p \ln x = \ln(x^p)$.)