QUIZ 2 - MATH 310 YOUR NAME:_____

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

1. (a) Use the integrating factor method to solve the first-order linear differential equation

$$\frac{dy}{dt} + 3y = 7t.$$

(b) Solve the initial value problem:

$$\frac{dy}{dt} + 3y = 7t, \quad y(0) = \frac{20}{9}.$$