

APPM 1360

Spring 2022

Quiz 5

03/01/2022

Time Limit: 10 Minutes

Name: _____

Recitation Section: _____

1. (10 points) The following questions are unrelated.

(a) Find the solution to the differential equation

$$\frac{dy}{dx} = xe^{x^2-y}$$

that satisfies the initial condition $y(1) = \ln 3$.

(b) Is the following sequence convergent or divergent? (Justify your answer)

$$a_n = \frac{(n-1)!}{(n+1)!}$$