

NAME:

**Final project, MATH 3120
Fall 2006**

Directions: Write your solution clearly and explain your answers. Answers without justification will not be given credit. This project is due in class on December 11, 2006.

Problem: [15p] Consider the following differential equation:

$$5(x - 2)y' = 4y.$$

Use power series method to write a power series solution of the given differential equation. Find the radius of convergence of this power series.