# Math 240 - Quiz 7

Name _____

October 29, 2020

Score _____

The following problems are from the suggested homework. Show all work to receive full credit. Supply explanations when necessary. You must work individually on this quiz. This quiz is due November 5.

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1. (5 points) State the recurrence relation that describes the coefficients of the power series solution, and state the guaranteed (by our theorem) radius of convergence.

$$(x^2 - 3)y'' + 2xy' = 0$$

*Turn over.*

2. (5 points) State the recurrence relation that describes the coefficients of the power series solution, and state the guaranteed (by our theorem) radius of convergence.

$$5y'' - 2xy' + 10y = 0$$