

NAME: _____ ID: _____ Section: _____

Exercise 1 (5 points)

Solve the differential equation $y'' - y = 2 \sinh x$

Exercise 2 (5 points) Solve the differential equation $x^2 y'' - xy' = x^3$ if $y_1 = 1$ is one solution of the homogeneous associated equation.

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Exercise 1 (5 points)

Solve the differential equation $y'' - y = 2 \cosh x$

Exercise 2 (5 points) Solve the differential equation $x^2 y'' - xy' = x^3$ if $y_1 = \frac{x^2}{2}$ is one solution of the homogeneous associated equation.