Matthew Mendoza Assignment Math45-Homework-WEEK-11 due 11/16/2020 at 11:59pm PST

1. (1 point) Find the general solution to $6x^2y'' + 24xy' - 24y = 0$.

Enter your answer as $y = \dots$. In your answer, use c_1 and c_2 to denote arbitrary constants and x the independent variable. Enter c_1 as c_1 and c_2 as c_2 .

_____ help (equations)

2. (1 point) Find the general solution to $x^2y'' + 11xy' + 25y = 0$.

Enter your answer as $y = \dots$. In your answer, use c_1 and c_2 to denote arbitrary constants and x the independent variable. Enter c_1 as c_1 and c_2 as c_2 (and use absolute values for c_2 in if necessary).

_____ help (equations)

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3. (1 point)

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Find the general solution to $x^2y'' + 5xy' - 2y = 0$.

• A.
$$y = c_1 e^{-4x} + c_2 e^{-x}$$

• B.
$$y = c_1 x^{-4} + c_2 x^{-1}$$

• C.
$$y = c_1 x^{(-2-\sqrt{6})} + c_2 x^{(-2+\sqrt{6})}$$

• D.
$$y = c_1 x^{(-2-\sqrt{6})} + c_2 x^{(-2-\sqrt{6})} \ln|x|$$