Worksheet 7/02 MAP 2302 - Summer B 2018 Group nr. ___ **Names:** _____

To receive credit you MUST SHOW ALL YOUR WORK. Answers which are not supported by work will not be considered.

1. (Pb. 2 p. 132 text) Given that $y = x + 1$ is a solution of

$$(x+1)^2 y'' - 3(x+1)y' + 3y = 0\,,$$

find a linearly independent solution by reducing the order. Write the general solution.

2. (Pb. 2, p. 143 text) Find the general solution for $y'' - 2y' - 3y = 0$.

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3. (Pb. 44, p. 144 text) Solve the IVP $9y'' - 6y' + y = 0,\ y(0) = 3,\ y'(0) = -1$.

4. Find the general solution for $y''' - 2y'' + 4y' - 8y = 0$.