

3. (6 points) Will the Frobenius method produce one or two independent solutions for $xy'' + 2xy' + 3y = 0$? Use the method until you can answer this question and explain or show how you know.
4. (4 points) Consider $x(x - 1)(x - 2)^2y'' + 2x(x - 1)^2y' + (x - 2)^2y = 0$. About which values of x can
- a) the power series method be applied?
 - b) the Frobenius method be applied, but not the power series method?
 - c) we not use either the power series method or the Frobenius method? How do you know this?