(1) Write \(\sum_{n=2}^{\infty} n(n-1)C_n x^{n-2} + \sum_{n=0}^{\infty} C_n x^{n+1}\) as a single power series whose general term involves \(x^k\).

(2) Find the series solution of the differential equation \(y'' - 2xy' + y = 0\) about the ordinary point \(x = 0\).