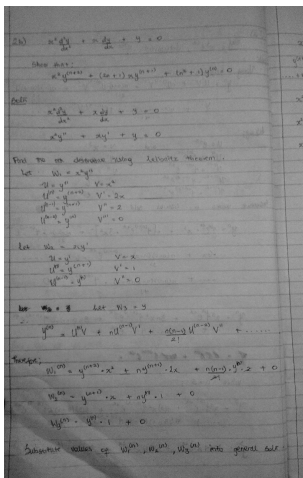
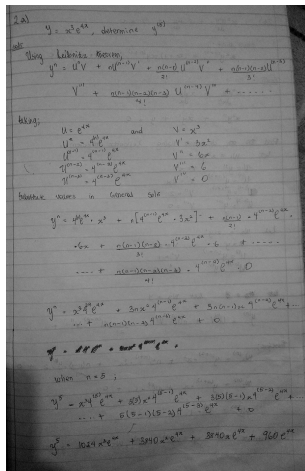
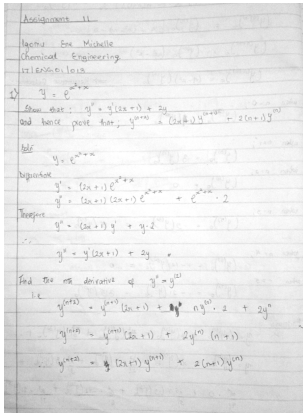


IGOMU ENE MICHELLE

CHEMICAL ENGINEERING

17/ENG01/013

ENGINEERING MATHEMATICS III ASSIGNMENT 2



$$2xy' + xy'' + y = 0$$

$$y^{(n+2)} - 2y^{(n+1)} + n(n-1)y^{(n)} + xy^{(n+1)} + ny^{(n)} + \dots + y^{(0)} = 0$$

$$x^2 y^{(n+3)} + 2xy^{(n+2)} + n(n-1)y^{(n+1)} + n^2 y^{(n+1)} + ny^{(n)} + y^{(0)} = 0$$

$$x^2 y^{(n+2)} + 2xy^{(n+1)}(2n+1) + y^{(n)}(n^2 - 2nx + 1) = 0$$

$$x^2 y^{(n+2)} + (2n+1)xy^{(n+1)} + (n^2 - 2nx + 1)y^{(n)} = 0$$