

System Simulation Problem 4

(A) 4th order accurate, b/c up to C_3 in Laurent's expansion equal 0.

(B) $C_4 = \frac{1}{24} a_1 + \frac{16}{24} \cancel{a_2} - \frac{1}{6} B_1 - \frac{8}{6} B_2$

$$C_4 = \frac{-1.56}{24} + \frac{16}{24} - \frac{0.29}{6} - \frac{8(0.46)}{2} = -1.29$$

~~✓~~ $LTE = (-1.29)(T^4)(X''')$