

3a

$n=2:$

$$U_3' = U_2 + \frac{h}{2}(2U_2 + 2U_3^0)$$

$$U_3^0 = U_2 + h2U_2 = 3.06656$$

$$U_3' \approx 3.24179 = U_3$$

$n=3:$

$$U_4' = U_3 + \frac{h}{2}(2U_3 + 2U_4^0)$$

$$U_4^0 = U_3 + h2U_3 \approx 4.53851$$

$$U_4' \approx 4.79785 = U_4$$

$n=4:$

$$U_5' = U_4 + \frac{h}{2}(2U_4 + 2U_5^0)$$

$$U_5^0 = U_4 + h2U_4 \approx 6.71699$$

$$U_5' \approx 7.10042$$