

3b

$$U_1' = 1.48$$

$$n=0, k=0$$

$$U_1'' = U_0 + \frac{h}{2}(2U_0 + 2U_1') \\ = 1.496 = U_1'$$

$$n=0, k=1$$

$$U_2' = U_1' + \frac{h}{2}(2U_1' + 2U_2'')$$

$$n=1, k=0$$

$$U_2'' = U_1' + 2hU_1' = 2.0944$$

$$U_2' = 2.21408$$

$$U_2'' = U_1' + \frac{h}{2}(2U_1' + 2U_2'')$$

$$n=1, k=1$$

$$= 2.23802 = U_2'$$

$$n=2, k=0$$