2 $U_{n+1} = U_n(2h^2 + 2h + 1)$

$U_n(h) = U_{n+1} - U_n 2h - U_n 2h^2$

$U_n(h/2) = U_{n+1} - U_n h - U_n \frac{h^2}{2}$

$$\frac{U_n(h) - 2U_n(h/2)}{-1} = U_{n+1} + U_n h^2 = R_1$$

$U_n(h) = U_n(0.1) \approx 7.304631$

$U_n(h/2) = U_n(0.05) \approx 7.366235$

$$\frac{7.304631 - 2 \cdot 7.366235}{-1} \approx 7.427838$$

$|R_1 - y(1)| \approx 0.038782 < |U_n(0.1) - y(1)| \approx 0.084425$