1c) Code Verification

Grid function error norm:

$$\|\underline{E}\|_2 = \left(h \sum_{j=1}^{m} |E_j|^2 \right)^{1/2}$$

where $\underline{E} = \underline{U} - \underline{\hat{U}}$

i.e. $E_j = U_j - u(x_j)$