d)Compare your results from your FD and FEM to the true solution in (a). Which solution is most accurate? How are you classifying 'most accurate'? Additionally, plot the errors of each solution method compared to the true solution.

With $h = \dfrac{1}{4}$

The error of FD is 0.2031 and the error of FEM is to the order of 10^-14

With $h = \dfrac{1}{20}$

The error of FD is 0.2415 and the error of FEM is still to the order of 10^-14

So with total error, FEM has less total error.

So FEM has higher accuracy on the grid.