4. In the following problems, we discuss why one scheme gives a good solution and the other does not. Recall that the global error analysis proceeds in two steps: Consistence + Stability $\Rightarrow$. Convergence

Let us first consider the stability. Compute $\|A^{-1}\|_\infty$, for the values of m and ϵ from Problem 3 and where A is the matrix corresponding to the central and upwind scheme.