Homework No. 7

Problem 8.5

- Solve for $T_{jk}$ rather than $\Delta T_{jk}$
- Modify tri-diagonal matrices in the code for ADI scheme at $t^{n+1/2}$ and $t^{n+1}$
- Impose time-dependent Neumann boundary conditions for each sweep ($t^{n+1/2}$ and $t^{n+1}$)
- Compare to Table 8.3 for Dirichlet/Neumann boundary conditions with $\Delta x = \Delta y = 0.20, 0.10, 0.05$

$$\bar{T} = 20 + 80[y - e^{-0.5\alpha \pi^2 t} \sin(0.5\pi x) \sin(0.5\pi y)]$$

Due Friday 11/30/2018