Continuation of heat transfer code from last week…

**Exercise 12: Animating**

Create an animation showing temperature versus position at many different moments in time. Again, make sure that the results seem reasonable, and check for convergence. Discuss.

**Exercise 13: Contour plots**

Create a contour plot that shows temperature as a function of both position and time in a single static plot. Again, make sure that the results seem reasonable, and check for convergence. Discuss.

**Exercise 14: Analysis**

At a temperature of 150∘ F, an object will quickly cause a burn if touched. (You can also get burned by cooler objects, but not immediately – only if you continue to touch the object for an extended period of time.) Based on the results of your simulations, discuss where you would – and would not – be able to safely touch the handle of the pan at different moments in time.

**Exercise 15: Repeat for other material**

Repeat the exercises above for a frying pan handle that is made of Bakelite rather than stainless steel. Discuss your results.