Math 54 Worksheet 27
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1. (a) Find the temperature at all times t of a metal bar with thermal diffusivity $\alpha = 1$ and initial temperature $f(x, 0) = 1 - |x|$ if the left and right endpoints $x = \pm 1$ are kept at $0°C$.

   (b) Now what if the left endpoint is kept at $100°C$ and the right endpoint is kept at $0°C$?

   (c) Same as part (b) with thermal diffusivity $\alpha = 100$.