Math 135, HW 7

Due Wednesday, March 4th

- Section 40, problem 1
- Section 40, problem 6 (but no need to draw sketches)
- Section 40, problem 7
- A string π units long is pulled into the shape $f(x) = x^2$ except for the end-points, with are fixed at 0, and then realsed at time 0 and allowed to vibrate. What is the function $y(x,t)$ giving the height of point x at time t? (That is, what is (17) from Section 40 if $f(x) = x^2$.)
- A rod π units long is heated so that the heat x units from the left end-point is x^2 degrees Celsius. The end-points are held to ice at precisely 0 degrees Celsius. What is the function $w(x,t)$ giving the temperature of the band at x at time t? (That is, what is (14) from Section 41 if $f(x) = x^2$.)