MTH 320: Homework 10

Due: November 10, 2017

1. Read Sections 25 and 28 in Ross.

2. Decide whether the following sequences converge pointwise on the domain specified. If so, to what?

   - $f_n(x) = nx(1-x)^n$ on $[0,1]$
   - $f_n(x) = \frac{\sin(nx+3)}{\sqrt{n+1}}$ on $[0,1]$.
   - $f_n(x) = \cos^n(x)$ on $[0, 2\pi]$.
   - $f_n(x) = n^2 x^n$ on $[0,1]$.

3. Do problems 23.1(a),(c),(e),(g), 23.4, 23.5, 24.2, 24.3, 24.4, 24.10, and 24.11 in Ross.