

1. Send an email to pravin@ufl.edu so that we can compile a group email. Due ASAP.

2. (Due 8/31) Let

$$y = |x|, \quad -l \leq x \leq l,$$
$$\tilde{y}_0 = \frac{l}{2} - \frac{4l}{\pi^2} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^2} \cos \frac{(2n-1)\pi x}{l}$$

plot out y .

Let

$$y_1 = \frac{l}{2} - \frac{4l}{\pi^2} \cos \frac{\pi x}{l},$$
$$y_2 = \frac{l}{2} - \frac{4l}{\pi^2} \left[\cos \frac{\pi x}{l} + \frac{1}{9} \cos \frac{3\pi x}{l} \right]$$

compare (i) y with y_1 ; (ii) y with y_2 .

Question: What are my purposes of assigning such a simple HW?