

Homework 5

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PSTAT 160A
November 8, 2016

10. c. After running a my script a few times I got values of 0.323, 0.3198, 0.32, 0.3129, and 0.3209.
d. Using the formula

$$\pi_0 = \sum_{j=0}^{\infty} \pi_0^j \cdot P_j$$

We get:

$$\frac{1}{5} - \frac{4\pi_0}{5} + \frac{\pi_0^2}{2} + \frac{\pi_0^3}{10} = 0$$

The smallest positive solution to this equation is $\pi_0 = 0.31662$, which is very close to the values I got for c.