

STA 137 Homework 5

Due on **May 30th** 12:00 pm PST. Please upload your assignment to Canvas.

1. For MA(1) model $x_t = \theta w_{t-1} + w_t$, using the innovation algorithm to show that

$$\theta_{n1} = \frac{\theta \sigma^2}{P_n^{n-1}}, \quad \theta_{nj} = 0, \quad j = 2, 3, \dots, n.$$

2. Problem 3.10 of the textbook
3. Problem 3.21 of the textbook
4. Problem 3.22 of the textbook