DIGITAL SIGNAL PROCESSING: COSC390

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Homework 1.1.3 - Question 1

If you have located your data for the final presentation, check to make sure it has less than 100,000 entries. That is, if it's a $N \times M$ matrix, make sure $N \times M \leq 10^5$. Some of you have already made suggestions to me, which is great! Keep them coming.

HOMEWORK 1.1.3 - QUESTION 2

Modify the code Fourier_Series_Saw.m (from Moodle, Unit 1 code folder) to produce the 20-term Fourier series of a square wave, as we derived in class. To remind ourselves:

$$A_0 = 1.0 \tag{1}$$

$$A_1 = A_2 = ...0.0 \tag{2}$$

$$B_{2n} = 0 \tag{3}$$

$$B_{2n+1} = 2/(n\pi) \tag{4}$$

In words: the Fourier series of a square wave has all B_n non-zero, with n being and odd integer. The other terms are all zero except A_0, which is 1.0. *This assignment is due Friday.* To turn it in, please email me your octave script.