



Sheet 7

Problem 1: *Integer Reversal*

Write a function `intRev` that takes an integer value and returns the number with its digits reversed.

For example, given the number 7631, the function should return 1367.

Problem 2: *Standard Deviation*

Write a function `sigma` that takes a one dimensional array of real numbers and returns the standard deviation σ .

a) Using

$$\sigma = \sqrt{\frac{1}{N} \sum_{i=1}^N (x_i - \mu)^2}, \mu = \frac{1}{N} \sum_{i=1}^N x_i.$$

b) Using

$$\sigma = \sqrt{E[X^2] - (E[X])^2}, E[X] = \frac{1}{N} \sum_{i=1}^N x_i, E[X^2] = \frac{1}{N} \sum_{i=1}^N x_i^2.$$