Economics 312 Daily Problem #1

Spring 2014 January 30

This property of summations is frequently useful in statistics and econometrics, and demonstrating it will allow you to review elements of algebra that we will use in class:

Show that
$$\sum_{i=1}^{N} (x_i - \overline{x})^2 = \sum_{i=1}^{N} (x_i)^2 - N\overline{x}^2$$
, where $\overline{x} = \frac{\sum_{i=1}^{N} x_i}{N}$.