

**Economics 312**  
**Daily Problem #1**

**Spring 2012**  
**January 26**

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