## Economics 312 Daily Problem \#1

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

