I. Normal Curve (p.273):

1. A.k.a. the Bell Curve
2. Graph represents the relative frequency (or probability) distribution of a continuous variable...

3. Peak (max frequency) occurs at the mean, \( x = \mu \)
4. Symmetric about (the vertical line), \( x = \mu \)
5. Area under the curve (from \(-\infty\) to \(\infty\)) is 1
6. Mean, median & mode are all equal
II. Empirical Rule (p.274):

1. 68% of the Area under the curve lies in the interval between $\mu - \sigma < x < \mu + \sigma$

2. 95% of the Area under the curve lies in the interval between $\mu - 2\sigma < x < \mu + 2\sigma$

3. 99.7% of the Area under the curve lies in the interval between $\mu - 3\sigma < x < \mu + 3\sigma$

III. Examples (pp.282-283): #6,8,10

IV. Area Interpretation (p.276): the % area of the graph that lies within the interval $a < x < b$, represents the % of data items in a sample/population found in the interval, as well as the probability that a random data value “$x$” lies in the interval.
V. Control Graph (pp.277-279):
   line graph which helps to identify “warning signals” for outliers and/or alarming trends;
   A. Graph details/procedure requires horizontal lines depicted at the values of $\mu$, $\mu \pm 2\sigma$, and $\mu \pm 3\sigma$...
   B. Control alerts for “out of control” signals consists of three major types, I, II & III (provided on all tests).

VI. Example (p.283): #12

HW: pp.281-285 / #3,5,9,13,15
    Read pp.288-296 (section 6.2)