$\underset{\rm STAT \ 201-502}{HOMEWORK} 1$

1 Math Refresher

SOME HELPFUL RULES

$$\begin{array}{ll}
\sqrt{x+y} \neq \sqrt{x} + \sqrt{y} & x_{i} \text{ where } i = 1, 2, 3 \text{ means } x_{1}, x_{2}, x_{3} \\
\frac{3}{x+y} \neq \frac{3}{x} + \frac{3}{y} & \sum_{i=1}^{3} x_{i} = x_{1} + x_{2} + x_{3} \\
\frac{x+y}{3} = \frac{x}{3} + \frac{y}{3} & x_{(i)} \text{ are ordered: } x_{(1)} \leq x_{(2)} \leq x_{(3)} \\
\sqrt{\frac{x^{2}}{y}} = \frac{x}{\sqrt{y}} & \sum_{i=1}^{3} (x_{i} - 3)^{2} \neq \sum_{i=1}^{3} (x_{i})^{2} + \sum_{i=1}^{3} 3^{2} \\
(-x)^{2} = x^{2} & \sum_{i=1}^{3} (x_{i} - 3)^{2} \neq \sum_{i=1}^{3} ((x_{i} - 3)(x_{i} - 3))) \\
-(x)^{2} = -(x^{2}) & \sum_{i=1}^{3} x_{i}y_{i} \neq \sum_{i=1}^{3} x_{i} \sum_{i=1}^{3} y_{i} \\
|-x| = x & n! = (n)(n-1)(n-2)...(2)(1) \\
(\frac{n}{k}) = \frac{n!}{(k)!(n-k)!}
\end{array}$$

a. $\sqrt{\frac{9}{4}} =$

b. Solve this equation for b: $\frac{a}{n} = y + \frac{b}{n}x$

c. $-(-11)^2 =$

d.
$$\sqrt{\frac{32}{n} + \frac{17}{n}} =$$

2 Questions about the syllabus

- a. Where is my office and when are my office hours?
- b. What should you do if you know you will miss class when a homework is due?
- c. What letter grade is 89.4446%?
- d. Are there any circumstances that allow turning in homework late?
- e. If your homework assignment consists of multiple sheets of paper what must you do before turning it in (or else loose points on the assignment)?

3 Lecture 1 material

- a. Make a stemplot using the variable weight for the first 10 individuals from the BRFSS found in Lecture 1.
- b. Do exercises 1.2, 1.7, 1.9 in the textbook