

Excel Formula Sheet

Consider that we have two columns of data : one in A1-A10 and the other in B1-B10

- The **Mean** of the data in the cells A1 - A10 : = **Average(A1 : A10)**
- The **Median** of the data in the cells A1 - A10 : = **Median(A1 : A10)**
- The **First Quartile** of the data in cells A1-A10: = **Quartile.exc(A1 : A10)**
- The **Third Quartile** of the data in cells A1:A10: = **Quartile.exc(A1 : A10)**
- The **correlation** of two sets of data is = **correl(A1 : A10, B1 : B10)**
- To find the **Least squares regression line equation** you need to draw the scatter plot of the data, then add the linear trend line. After the line shows up on your graph you double click the line and select show equation.
- For Normal Distribution formulas you need:
 - The **mean**.
 - The **standard deviation** (denoted by **stand-dev**).

We can use Excel then to find a number of Probabilities:

- For $P(\mathbf{X} \leq \mathbf{a}) = P(\mathbf{X} < \mathbf{a})$ you type in = **Norm.dist(a, mean, stand - dev, true)**
 - For $P(\mathbf{X} \geq \mathbf{b}) = P(\mathbf{X} > \mathbf{b})$ you type in = **1 - Norm.dist(b, mean, stand - dev, true)**
 - For $P(\mathbf{X} = \mathbf{c}) = \mathbf{0}$
- For **Inverse Normal distribution** (i.e if you want to find the value x such that C proportion of the population scores under x we use) = **Norm.inv(C, mean, stand - dev)**
 - For Binomial Distribution formulas you need:
 - The **number of trials** (Usually denoted by n)
 - The **probability of success** (Usually denoted by p)

We can use Excel then to find a number of Probabilities:

- For $P(\mathbf{X} \leq \mathbf{a})$ you type in = **Binom.dist(a, n, p, true)**
 - For $P(\mathbf{X} < \mathbf{a})$ you type in = **Binom.dist(a - 1, n, p, true)**
 - For $P(\mathbf{X} > \mathbf{c})$ you type in = **1 - Binom.dist(c, n, p, true)**
 - For $P(\mathbf{X} \geq \mathbf{d})$ you type in = **1 - Binom.dist(d - 1, n, p, true)**
 - For $P(\mathbf{X} = \mathbf{e})$ You type in = **Binom.dist(e, n, p, false)**
- To find **Factorial** of a number n (i.e. $n!$), you type in = **Fact(n)**
 - To find the **Square Root** of a number n (i.e. \sqrt{n}), you type in = **sqrt(n)**
 - To find the $\binom{n}{r}$, you type in = **Combin(n, r)**