2. **[5 marks]** Let X be a binomial random variable with $n = 50$ and $p=0.15$. Use MINITAB to simulate 100 values from this distribution as follows (**Do not include any of the output you produce**):

Make sure you start a new worksheet if you want to keep Question 1 Data (File → New → Worksheet)

Simulate Binomial Data:

- Activate the Command Line:
- Using the menu select View → Command Line/History
- Type the following commands in the Command Line Window
  random 100 c1;
  binomial 50 0.15.

Finding Exact Cumulative Probabilities:

- Type the following commands in the Command Line Window
  cdf;
  binomial 50 0.15.

A. **[1 mark]** Using the data you simulated above, find the percent of values less than 10.

You can use the following commands:
let c2= (c1<10)
tally c2

B. **[2 marks]** Using the table of cumulative probabilities, find the exact probability, $P(X<10)$. Compare this probability to the value you obtained in A and comment of the difference.

C. **[2 marks]** Using the table of cumulative probabilities, find the $P(15 \leq X < 40)$.