

Lab Exercise
Quantitative Methods
(50 pts)

Input the INTERVAL scale data you collected on the 20 flakes into Excel and answer the following questions:

- 1) In Excel create a frequency distribution for **two** interval variables.
- 2) In Excel calculate the *mean* and *standard deviation* for any **four** interval variables (create formulas in the spreadsheet—do not use Excel statistical functions).
- 3) On *graph paper* create **two** histograms from any two interval variables (thoroughly label the x and y axis of the graph and use a ruler to draw the lines).
- 4) In Excel create **two** XY (scatter) plots for any pair of interval variables; calculate the correlation (r) for each plot and interpret its strength using the correlation function under Data Analysis.

Input the NOMINAL data into Excel and answer the following questions:

- 5) In Excel calculate the percentages for both nominal scale variables and sum each variable state (i.e., platform and termination type).
- 6) In Excel create two bar graphs (termination type and platform type).
- 7) Create in Excel a cross-tabulation of the two nominal variables (collapse into a 2x2 table) and calculate the Chi-square value for the table and evaluate its significance at the .05 alpha level (using the CHIDIST function in Excel).

Email your Excel spreadsheet to me at: cstafford@indstate.edu