GEOG503A Mid-term Exam

Use PyCharm or Jupyter Notebook to perform the following tasks:

Input data folder: \data

Results folder: \data\Results\

Tasks:

1. Write a program that repeatedly prompts a user for numbers until the user enters 'done'. Once 'done' is entered, print out the largest, smallest, sum, and average of the numbers. If the user enters anything other than a valid number put out an appropriate message and ignore the number. (25 pt.)
2. Write a script that copies polygon-type feature classes and float-type raster datasets from testdata.gdb to the Results folder. Feature classes can be saved as Shapefile format while raster datasets can be saved as TIF format. Note that you cannot use hard-coded filename (e.g. "buffers_poly") to specify which file to copy. (25 pt.)
3. Write a script that converts the airports.txt into a Point-type shapefile. The resulting shapefile should have the following fields based on the information from the airports.txt, including NAME, LOCID, X, and Y. (25 pt.)
4. Write a script that creates an envelope polygon feature class for the Hawaii.shp feature class. There is actually a tool that accomplishes this called Minimum Bounding Geometry. You can look at the tool to get some ideas, but your script needs to work directly with the geometry properties. (25 pt.)

Upload your Python scripts or Jupyter Notebook (without data/results) to Blackboard.