Discrete Mathematics
Worksheet 2.3/2.4 **Name _____**

1. Gwinnett County needs to divide scholarships equally amongst three schools Berkmar, Duluth, and Meadowcreek. There are 16 scholarships and each school must be represented fairly (according to the population).

Ideal Ratio: _____

Character	Class Size	Quota	Truncated Quota
Berkmar	231		
Duluth	502		
Meadowcreek	355		

Now, decide how many scholarships each school will have using the Hamilton, Jefferson, Webster, and Hill Methods. You may use the tables below for your work.

Character	Initial Hamilton Apportionment	Initial Jefferson Apportionment	Jefferson Adjusted Ratio	Initial Webster Apportionment	Arithmetic Mean for Class	Webster Adjusted Ratio	Geometric Mean for Class	Initial Hill Apportionment	Hill Adjusted Ratio
Berkmar									
Duluth									
Meadowcreek									

FINAL ANSWER

Character	Hamilton	Jefferson	Webster	Hill
Berkmar				
Duluth				
Meadowcreek				

2. Apple is hiring interns from Duluth High School. There are 30 jobs total with the company and each department must be represented fairly based on the number of applicants per department.

Ideal Ratio _____

Artist	Class Size	Quota	Truncated Quota
Apple	485		
ESPN	320		
ABC Network	627		
Disney	733		

Now, decide how many seats each artist will have representing him/her/them using the Hamilton, Jefferson, Webster, and Hill Methods. You may use the tables below for your work.

Artist	Initial Hamilton Apportionment	Initial Jefferson Apportionment	Jefferson Adjusted Ratio	Initial Webster Apportionment	Arithmetic Mean for Class	Webster Adjusted Ratio	Geometric Mean for Class	Initial Hill Apportionment	Hill Adjusted Ratio
Apple									
ESPN									
ABC Network									
Disney									

FINAL ANSWER

Artist	Hamilton	Jefferson	Webster	Hill
Apple				
ESPN				
ABC Network				
Disney				