

1. In class we wrote a program to calculate the probability of shared birthdays as a function of class size. Alter the program so that it stores the class-size and resulting probability in comma-separated-values format. Make sure the data covers classroom sizes 2-50 students and uses 1000 replicates of each classroom size. Bonus points: make a graph of your data using excel and submit it with your homework for extra credit (+50%)
2. Write a program that writes the following poem to a file:

Mary had a little lamb  
Whose fleece was white as snow  
And everywhere that Mary went  
The lamb was sure to go.

3. Write a program that has the following output:

1  
A  
B  
C  
D  
2  
A  
B  
C  
D  
3  
A  
B  
C  
D

... and should continue the patter until the number reaches 20.