Compound Events WS   Name _____

1. A couple plans to have three children.
   a) List the eight different possible outcomes according to the sex of each child.

   Assume these outcomes are equally likely.
   b) Find the probability of having two boys and one girl.

   c) Find the probability of having all boys.

2. If four persons are chosen at random from a class containing 8 freshmen and 12 sophomores, what is the probability that 4 freshmen are chosen?

3. In a particular dormitory, there are 350 college freshmen. Of these, 312 are taken an English course and 108 are taking a mathematics course. If 95 of these freshmen are taking courses in both English and mathematics, how many are not taking a course in either?

The following table shows a summary of criminal cases that occurred in Badtown, USA.

	Homicide	Robbery	Assault	Totals
Stranger	12	379	727	
Acquaintance or relative	39	106	642	
Unknown	18	20	57	
Totals				

4. How many crimes are represented in the table? (Complete the totals in the table above.)

5. Use the table to find each probability.

   a. crime was an assault or a robbery

   b. crime was not committed by a stranger

   c. victim was robbed or victimized by a stranger

   d. crime was a robbery committed by an unknown assailant

   e. someone was assaulted, given that they were victimized by an unknown assailant.

   f. someone was assaulted or victimized by an unknown assailant.

   g. if two subjects are randomly selected, they are both assault victims.

   h. if two subjects are randomly selected, that one was assaulted and the other was robbed.