

- 5) 110 Students at the University of Ottawa were asked if they attended at least 1 Gee-Gees sports game last year. They were then classified by gender to yield the following results:

	Attended	Did not Attend	Total
Male	45	26	
Female	15	24	
Total			

If you were to ask a student at random ...

- What is the probability that the student is male?
- What is the probability that the student attended a game?
- What is the probability that the student is female or did not attend a game?
- What is the probability that the student is male and attended at least 1 game?
- Given the student is male, what is the probability that he did not attend a game?
- Given a student did not attend a game, what is the probability the student is female?
- Are the 2 events independent?
- If 5 random students are asked, what is the probability that they are all male and attended a game?

6) You have recently been presented an investment option containing 20 Nortel Stocks and 15 Ottawa Senator Stocks. The Nortel Stock is currently trading at \$12 with a standard deviation of \$2. The Ottawa Senators stock is currently trading at \$14 with a variance of \$6. You are also guaranteed a sign-up bonus of \$5 bonus. Calculate the Expected Value, Variance, SD, and Co-efficient of Variation of the Investment.

7) Coke claims that 60% of the population prefers their products over Pepsi products. You decide to test this theory by surveying students at the University of Ottawa. You decide to ask the first 12 people you see what their preference is.

- What is the probability that the 5th person is the first to prefer coke?
 - What is the probability that 7 of them will prefer Coke products?
 - What is the probability that less than 3 of them will prefer Coke Products?
 - What is the probability more than 1 of them will prefer Coke Products?
 - You decide to increase your sample size to 200, what is the probability that over 130 of them will prefer Coke Products?
 - Do you see any problems with the methods used in this experiment?
- 8) A local car dealership expects to sell 3 cars each day.
- What is the probability that they will sell no cars for the next 3 days?
 - What is the probability that they will sell more than 2 cars in the next 2 days?
 - What is the probability that they will sell 1 car in the next 3 hours?
 - What is the probability that the first car is sold after the third day?
 - No cars have been sold in the last 2 days, what is the probability that no cars will be sold for another 2 days?
 - What is the probability that the first car will be sold somewhere between 3 and 5 days from now?
- 9) In a uniform distribution with a lower limit of 0 and an upper limit of 50. A number is chosen at random.
- What is the probability that the number is less than 17?
 - What is the probability that the number is greater than 44?