**First Collection:**

The following work is expressing my take on the following examples for each specific section regarding the topic covered. This is my understanding of what I have understood from reading the chapter and previous knowledge by writing a paragraph showing how to perform and resolve each example.

2.1 For this problem they gave us a scenario we have to find the probability. To do this we have to use the total number of x or victims divided by the number that is the question variable, this will give us a decimal. We multiply it by 100 it will give us a percentage to answer the question.

2.2 This problem is an experiment they gave us the classification list its probability to answer part b section a,b,c we will add the events probabilities and that will give us the answer, for example P(x1,x2,x3) would be x1+x2+x3=x4. For part b and c they want us to list the P same way as previous part.

2.3 For this problem they gave us one P for one subject to get the other P or probability for the other subject we just need to subtract 100-p and we get the other subject P. To solve part b, we have to solve using one subject p, by p\*p= P.

2.4 Problem 4 two events A and B they gave us probability number of the P(A) and P(B) for both they want us to find the P that either A or B occurs. To do this we will find P(A|B) next step would be testing out each one by the P(C) and we would conclude that they cannot occur because they are not depended from each other because P(A) does not = P(B0

2.5 They gave us data for this problem for part a. they want to know the probability P(x). To get this, and answer the question we have to divide the subject accepting lag by the sum of the subject accepting lag and rejecting lag, then multiply it by 100. For part b we have to use the parallel type subjects add there rejected lag and divided by the sum of the rejected lag and the accepted lag. For part c we are using the parallel type and the little traffic accepting lag divided by the sum of the little traffic accepting lag plus little traffic tapered accepting lag. That how we conclude this problem.

**Second Collection:**

2.1 Probability is the chance that something will happen – how likely it is that some event will happen. The probability of an event happening is equal to number of ways it can happen/total number of outcomes. P(X) = 122/177 = .689. There were 122 homicide victims out of the 177 New Yorker City workers who died of injuries.

2.2 A. An event is one or more outcomes. To find the probability of an event, add the outcomes. A. Outcome of S1, S2, or S4 = P = (.15 + .20 + .25) = .60 B. Outcome of S2, S3, or S5 = P = (.20 + .20 + .20) = .60 C. Outcome of S4 does not occur = P = (.15 + .20 + .20 + .20) = .75 or 1 - .25 = .75 2.2 B. Complements are all outcomes that are not in the event. Complement of A = S3, S5 Complement of B = S1, S4 Complement of C = S4 2.2 C. Probabilities of Complement A, B, and C A = .20 + .20 = .40 B = .15 + .25 = .40 C = .25

2.3 A. The probability of women was given at 40%. To find the probability of men, subtract 100 – 40 (women) = 60% (men). B. To find probability of both primary car maintainers in a sample of two selected form the population of women, multiply the number of women by the number of women P(W) = .40 x .40 = .16

2.4 A. The probability is given for event A and event B. A and B are independent if and only if P(A|B) = P(A). They are not independent because P(A|B) ≠ P(A). B. They are not independent because P(A|C) ≠ P(A). C. They are not independent because P(B|C) ≠ P(B).

2.5 A. To find the probability that a driver in a tapered merging lane with heavy traffic will accept the first available lag, divide subject accepting the lag by the sum of subject accepting the lag and rejecting the lag – P(X) = 16/16 + 115 = .122 B. To find the probability that a driver in a parallel merging lane with heavy traffic will reject the first available lag, add both parallel drivers rejecting the first available lag divided by drivers accepting and rejecting first available lag time – P(Y) = 139 + 331/40 + 144 + 139 + 331 = 470/654 = .719 C. To find probability that the driver is in a parallel merging lane, use the number of little traffic in parallel lane divided by the sum of little traffic in tapered and parallel lanes – P(Z) = 144/144 + 67 = .682

**Third Collection:**

**2.1:**

The scenario is given in paragraph form describing the study that was gathered. There were 177 deaths on the job last year and 122 of them were homicide. To determine the probability of that an on the job death of a worker is the result of a homicide is to divide 122 by 177 to equal .689.

**2.2:**

The information gathered is placed in table form showing the probability of five simple events. AA) to find the probability of S1, S2 or S3 is to add their probability of the occurrence which is .15+.20+.25=.60. AB) to find the probability of S2, S3 or S5 is to add their probability of the occurrence which is .20+.20+.20=.60. AC) to find the probability of S1, S2, S3, S5 or S6 is to add their probability of the occurrence which is .15+.20+.20+.20=.75. B) To find the compliment of an event is to include all events that are not part of the outcomes. So the compliment of A = S3 and S5. The Compliment of B=S1 and S4. The Compliment of C = S4. C) To find the probabilities of A’, B’ and C’ we just add up what their compliments were. A’= .40, B”=.40 and C’=.25.

**2.3:**

Assuming the P(A) = .6, P(B) = .4, P(C) = .5, P(A/B) = .15, P(A/C) = .5, and P(B/C) = .3. Events A and B are not independent because P(A/B) does not equal P(A). Events A and C are not independent because P(A/B) does not equal P(A). Events B and C are not independent because P(B/C) does not equal P(B).

**2.4:**

The information is given in paragraph form describing that 40% of car maintenance advertising is geared toward woman. A) To determine the probability that woman are selected as the primary car maintainer is .40 and for men it is the difference from 100 which is .60. B) To determine the probability that both car maintainers in a sample of two selected from the population are women, we multiply the women by themselves which is .40 \* .40 = .16