Name_____

Date_____

Advanced Algebra

Unit 8: Probability – Conditional Probability Assignment #14

Find the following conditional probabilities:

1) A letter is randomly selected form the letters of the English alphabet. Find the probability of selecting a vowel given that the outcome is a letter that precedes h.

2) A letter is randomly selected from the letters of the English alphabet. Find the probability of selecting a letter that precedes h given the outcome is a vowel. (Do not include y).

3) If you roll a single six sided die, what is the probability of getting either a 4 or a 5?

For the following, Draw a Venn Diagram and then find the following
P(A)   P(B)   P(A∩ B)   P (A|B)   P (B|A) P(A ∪ B) Are they Mutually exclusive Are they Independent?

4) In a group of 52 Baboons, 38 enjoy grooming their neighbors, 28enjoy screeching widely, and 16 enjoy grooming neighbors and screeching wildly.

5) In a group of 70 students, 48 take math, 28 take psychology and 16 take both math and psychology.

6) A survey of 200 college students was taken to determine where they got the news about what is going on in the world. 86 students got the news from newspapers, 127 from television, and 35 from both newspapers and television.

7) A survey of 300 college students was taken at registration. Of those surveyed, 197 students registered for a math course, 160 for an English course and 92 for both math and English.

Draw the Venn diagram for the following:

8) A survey of 180 college men was taken to determine participation in various activities. 69 were in Frats, 82 were in sports, and 91 were in tutoring programs. 25 were in Frats and Sports. 30 were in Sports and tutoring. 28 were in Frats and Tutoring. Twelve were in all three.