Name _____   Period _____

#1-10. A national trade group studied the make-up shopping habits of women throughout Southern California. The following two-way table organizes the data by the consumer's preferred manufacturer, and by the age category of the female consumers (categorized as Teenage Women, Adult Women or Senior Women). Assuming a women is chosen at random, use this data to calculate the following probabilities. Write your answers as fractions.

Consumer/Manufacturer	Mac	Cover Girl	Revlon	Neutrogena	Chanel
Teenage Women	645	455	786	375	239
Adult Women	1,123	2,908	4,357	2,431	1,181
Senior Women	609	1,125	1,357	953	956

SET ONE:

1. P(Senior Women)

2. P(Senior Woman and Prefers Cover Girl)

3. P(Prefers Neutrogena/Senior Women)

4. P(Prefers Revlon/Teenage Women)

5. P(Senior Women/Prefers Chanel)

6. P(Prefers Cover Girl OR Prefers Mac)

7. P(Adult Women OR Prefers Revlon)

8. P(Not a Teenage Women)

9. What proportion of the women who prefer Cover Girl are teenage women?

10. What proportion of the senior women prefer Revlon?

SET TWO:

1. P(Prefers Neutrogena)

2. P(Teenage Woman and Prefers Revlon)

3. P(Prefers Revlon/Adult Women)

4. P(Prefers Revlon/Adult Women)

5. P(Prefers Chanel/Senior Women)

6. P(Prefers Chanel OR Prefers Cover Girl)

7. P(Adult Women OR Prefers Chanel)

8. P(Does not prefer Revlon)

9. What proportion of the women who prefer Chanel are teenage women?

10. What proportion of the teenage women prefer Mac?