Math 8 **Probabilty: Dependent Events**   Name: _____

1.   You pick 2 marbles without replacement from a bag with 5 red and 7 blue marbles.

a)   Draw the COMPLETE probability tree diagram for this situation

b)   What is the probability of drawing a least one red marble?

c)   What is the probability of drawing exactly one red marble?

d)   What is the probability that both marbles are blue?

2.   You pick 2 marbles without replacement from a bag with 1 green, 4 red and 5 blue marbles.

a)   Draw the COMPLETE probability tree diagram for this situation

b)   What is the probability of drawing 2 green marbles?

c)   What is the probability of not drawing any red marbles?

d)   What is the probability of drawing at least one blue marble?

3. There are 14 girls and 10 boys in a class.
The teacher randomly selects two different students as class president and vice president.

a) Draw the COMPLETE probability tree diagram for this situation

b) What is the probability that both students will be boys?

c) What is the probability that at least one will be a boy?

d) What is the probability that at least one will be a girl?

4.   You randomly select 3 candies from a bag which contains 8 chocolates and 12 mints.

a)   Draw the COMPLETE probability tree diagram for this situation

b)   What is the probability of drawing 3 chocolates?

c)   What is the probability of not drawing any chocolates?

d)   What is the probability of drawing at least one mint?