Geometry (HSS-CP.A.2) Name: _____
Unit Six: Probability – Day 3 – Compound Probability (HW4) Date: _____ Period: _____

1. Determine if the two events are independent of each other.

	Event #1	Event #2		
a)	Your Age	Your height	Independent	Not Independent
b)	The day of the week	Your hair color	Independent	Not Independent

2. Determine if the two events are independent of each other.

a) Choosing a marble from bag #1, and then choosing a marble from bag #2. I or NI

b) Selecting a marble from a bag, keeping it, and then selecting another marble. I or NI

c) Spinning a spinner to get a blue, and then flipping a coin to get a head. I or NI

3. The given two events, Event A and Event B are independent events.

a) P(A) = 0.4 P(B) = 0.3 P(A and B) = _____ b) P(A) = 0.76 P(B) = 0.11 P(A and B) = _____

c) P(A) = 0.4 P(A and B) = .22 P(B) = _____ d) P(A) = 0.74 P(A and B) = .37 P(B) = _____

4. Determine if the following are independent or not.

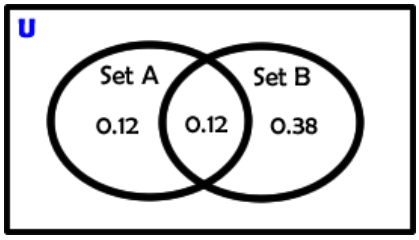
a) P(A) = 0.55 P(B) = 0.20 P(A and B) = 0.11 Independent Not Independent

b) P(A) = 0.40 P(B) = 0.60 P(A and B) = 0.24 Independent Not Independent

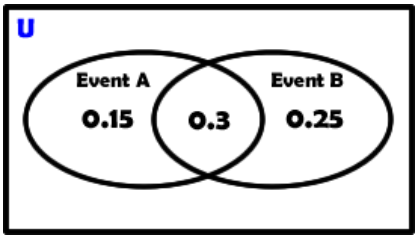
5. Travis says to a friend, I understand independence; it is when you have no elements in common. Is he correct? Explain.

6. Determine if the following events are independent or not.

a) Independent or Not Independent



b) Independent or Not Independent



7. Determine if the event is independent or not, and determine the probability of it happening.

a) A bag of marbles has 3 red and 6 green marbles. What is the probability of selecting two red with replacement?

Independent or Not Independent

P(R and R) = _____

b) A bag of marbles has 3 red, 1 green and 7 yellow marbles. What is the probability of selecting a green and then a yellow without replacement?

Independent or Not Independent

P(G and Y) = _____

c) You roll two sixed sided dice. What is the probability of getting a six and then a value less than 3?

Independent or Not Independent

P(S and L) = _____

8. How does the term replacement help keep events independent of each other?

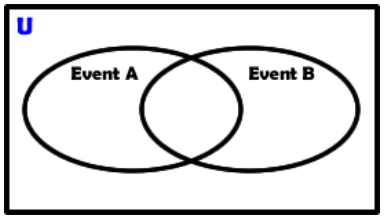
9. Events A and Event B are independent. Complete the Venn diagram and determine the probability.

a) P(A and B) = 0.3

P(A and Not B) = 0.2

P(A) = _____

P(B) = _____

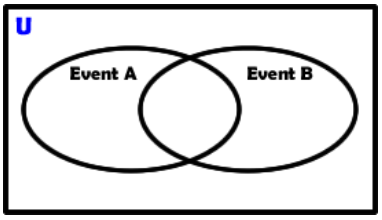


b) P(A and B) = 0.22

P(B and Not A) = 0.18

P(B) = _____

P(A) = _____



c) P(A and B) = 0.2

P(B) = 0.8

P(A)? _____

P(B and Not A)? _____

P(A and Not B)? _____