

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

	<u>Event #1</u>	<u>Event #2</u>		
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) $P(A) = 0.4$ $P(B) = 0.3$ $P(A \text{ and } B) = \underline{\hspace{2cm}}$ b) $P(A) = 0.76$ $P(B) = 0.11$ $P(A \text{ and } B) = \underline{\hspace{2cm}}$
- c) $P(A) = 0.4$ $P(A \text{ and } B) = .22$ $P(B) = \underline{\hspace{2cm}}$ d) $P(A) = 0.74$ $P(A \text{ and } B) = .37$ $P(B) = \underline{\hspace{2cm}}$

4. Determine if the following are independent or not.

- a) $P(A) = 0.55$ $P(B) = 0.20$ $P(A \text{ and } B) = 0.11$ Independent Not Independent
- b) $P(A) = 0.40$ $P(B) = 0.60$ $P(A \text{ and } B) = 0.24$ 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 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
 $P(R \text{ and } R) = \underline{\hspace{2cm}}$
- 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
 $P(G \text{ and } Y) = \underline{\hspace{2cm}}$

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

$P(S \text{ and } L) = \underline{\hspace{2cm}}$

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