You must complete this before retaking the MC again. Remember it is all about LEARNING so take your time and learn how to do these skills. If you need help please ask!

NAME:_____

Corrective Assignment 12.2

Directions 1-4: Find the following using backwards probability.	
1) About 2 in 11 people "win" during the McDonalds Monopoly contest. About how many times should some expect to "win" if they eat at McDonalds once a day for 44 days?	2) 3% of all Unit tests are lower than 70% and need to be retaken. If Sully gives 1500 Unit tests this year about how many of those will need to be retaken?
3) There's 3 out of 13 chance that when you pick a marble out of a bag it will be red. If there 52 marbles in the bag, about how many of the marbles would you expect to be red?	4) There's a 15% chance of rain for each day in the month of August in Germany. There are 31 days in June, about how many days should you expect it to rain for the month?

Directions: Find the given probability	
5) What's the probability of rolling a 4 or picking a heart from a standard deck of cards?	6) What's the probability of rolling a 1 and a 5 when rolling two six-sided dice?
7)What's the probability of picking two cards such that the first is a face card and the second is an ace when you put your original card back in the deck?	8) What's the probability of picking two cards such that the first is a face card and the second is an ace without putting the original card back in the deck?
9) What's the probability of picking a face card from a standard deck or rolling a prime number?	10) What's the probability of picking an even numbered card or rolling a non-prime number?
11) What's the probability of picking a prime numbered card and a face card when you don't put your original card back?	12) What's the probability of picking a prime numbered card and a face card when you put your original card back?

Use the following: A certain game has a person draw a card from a regular deck of cards and roll a six-sided die.	
13) If a player draws a face card or rolls an odd number they win. Find P(winning).	14) If a player draws a face card and rolls an odd number they win. Find P(winning).
15) Find P(picking spade and rolling a prime number)	16) Find P(numbered card or non-prime number)

Use the following: A certain game has a spinner with 4 equal sectors (red, maroon, blue, white), and rolling a 12-sided die.	
17) If a player spins a red, rolls a non prime number they win. Find P(winning).	18) If a player spins a red, rolls a non prime number they win. Find P(losing).
19) If a player spins a red, or rolls a non prime number they win. Find P(winning).	20) If a player spins a red, or rolls a non prime number they win. Find P(losing).

ANSWERS TO CORRECTIVE ASSIGNMENT:

Make sure you check all your answers and make sure you KNOW how to do all of them. You could simply copy answers but that's not the point. The point is that you have to learn how to do this so please make sure that for any you don't understand you get help BEFORE taking the Mastery Check again.

1) 8 wins   2) 45 retakes   3) 12 red marbles   4) about 4.65 days   5) $\frac{3}{8}$ = .375 = 37.5%

6) $\frac{1}{36}$ = .028 = 2.8%   7) $\frac{3}{169}$ = .0178 = 1.78%   8) $\frac{4}{221}$ = 0.0181 = 1.81%   9) $\frac{8}{13}$ =.6154 = 61.54%

10) $\frac{9}{13}$ = .6923 = 69.23%   11) $\frac{16}{221}$ = .0724 = 7.24%   12) $\frac{12}{169}$ = .0710 = 7.10%

13) $\frac{8}{13}$ = .6154 = 61.54%   14) $\frac{3}{26}$ = .1154 = 11.54%   15) $\frac{1}{8}$ = .125 = 12.5%

16) $\frac{11}{13}$ = .8462 = 84.62%   17) $\frac{7}{48}$ = .1458 = 14.58%   18) $\frac{41}{48}$ = .8542 = 85.42%

19) $\frac{11}{16}$ = .6875 = 68.75%   20) $\frac{5}{16}$ = .3125 = 31.25%