Section 12.7: Experimental Probability Worksheet

1.) What is the theoretical probability that an even number will be rolled on a number cube?

Number on Cube	Frequency
1	8
2	3
3	9
4	6
5	4
6	6

2.) What was the experimental probability of how many times an even number was actually rolled using the table?

3.) If you roll a number cube 36 times, how many times would you expect to roll the number one?

4.) How many times did you actually roll the number one in the experiment?

5.) What is the theoretical probability for rolling a number greater than 4?

6.) What was the experimental probability of rolling a number greater than 4?

7.) What is the difference between theoretical and experimental probability?

8.) If a car factory checks 360 cars and 8 of them have defects, how many will have defects out of 1260?

9.) If a car factory checks 320 cars and 12 of them have defects, how many out of 560 will **NOT** have defects?

10.) You plant 30 African violet seeds and 9 of them sprout. Use experimental probability to predict how many will sprout if you plant 20 seeds?

Disjoint vs. Overlapping events:
11.) If you are picking a number between 1-20 what is the probability that you will pick a number greater than 14 or less than 4?

12.) If you are picking a number between 1-20 what is the probability that you will pick an even number or a multiple of three?

13.) If you are picking a number between 1-20 what is the probability that you will pick a multiple of two or a number greater than 15?

Answer Key:

1.) $\frac{1}{2}$	2.) $\frac{4}{9}$	3.) 6
4.) 8	5.) $\frac{1}{3}$	6.) $\frac{5}{18}$

7.) Theo= what should happen
Exp = What actually happens

8.) 28	9.) 539	10.) 6
11.) $\frac{1}{2}$	12.) $\frac{13}{20}$	13.) $\frac{3}{5}$