Situation	Theoretical Probability

Situation

Pick a card from the deck. Record the suit and color of the card. Replace the card and repeat until you have filled every space.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.
16.

Theoretical Probability

1. What is the probability of drawing a red card? ____

2. What is the probability of drawing a black card? _____

3. What is the probability of drawing a club? _____

4. What is the probability of drawing a diamond? _____

Experimental Results

What fraction of the time did you draw a red card? ____

What fraction of the time did you draw a black card? ——

What fraction of the time did you draw a club? _____

What fraction of the time did you draw a diamond? _____

Analysis Questions

1. Compare your theoretical probability with the experimental results.

SITUATION	THEORETICAL PROBABILITY
ag 1 contains 1 yellow tack and 1 blue tack.	To win the grand prize, a contestant must choose yellow, red, black.
'g 2 contains 1 red tack and 2 green tacks	1. What is the probability that a customer wins the grand prize? _____
'g 3 contains 1 Black tack and **3** white tacks	2. What are the 2 most likely sequences? __ __ __ __ __ __
hout looking, choose 1 tack from each bag. Record your results, then replace the tacks.	3. What is the probability that it occurs? _____

1 2 3

```
— — —  1.          1    2    3
— — —  2.     7. __ __ __
— — —  3.     8. __ __ __
— — —  4.     9. __ __ __
— — —  5.    10. __ __ __
— — —  6.    11. __ __ __
              12. __ __ __
```

EXPERIMENTAL RESULTS	ANALYSIS QUESTIONS
What fraction of the time did you win the grand prize? _____	Compare the theoretical probability with your experimental results.
What sequence occurred most frequently for you? __ __ __	
What fraction of the time did it occur?	

	SITUATION		THEORETICAL PROBABILITY

SITUATION

Fill in the following table by finding the __sum__ of each roll.

	1	2	3	4	5	6
			5			
				9		

'ow roll the pair of dice and record the __sum__ each time.

- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.

THEORETICAL PROBABILITY

Use your table to answer these ?'s:

1. What is the probability of rolling a sum of 5? _____

2. Which sum should appear most frequently? _____

3. What is the probability of rolling a sum greater than 9? _____

4. What is the probability that the sum is prime? _____

EXPERIMENTAL RESULTS

What fraction of the ~~time~~ time did you roll a 5? _____

Which sum did appear most frequently? _____

What fraction of the time did you roll a sum greater than 9? _____

What fraction of the time was your sum prime? _____

ANALYSIS QUESTIONS

1. Compare the theoretical probability with the experimental results.

SITUATION	THEORETICAL PROBABILITY
FLIP A COIN 20 TIMES AND RECORD THE RESULTS HERE: 1. 11. 2. 12. 3. 13. 4. 14. 5. 15. 6. 16. 7. 17. 8. 18. 9. 19. 10. 20.	WHAT IS THE PROBABILITY OF FLIPPING HEADS? WHAT IS THE PROBABILITY OF FLIPPING TAILS? IF YOU FLIP 20 COINS, HOW MANY WOULD YOU EXPECT TO BE HEADS? IF YOU FLIP 20 COINS, HOW MANY WOULD YOU EXPECT TO BE TAILS?
EXPERIMENTAL RESULTS	ANALYSIS QUESTIONS
WHAT FRACTION OF FLIPS CAME UP HEADS? WHAT FRACTION OF FLIPS CAME UP TAILS?	COMPARE THE THEORETICAL PROBABILITY WITH YOUR EXPERIMENTAL RESULTS.

SITUATION	THEORETICAL PROBABILITY
SPIN THE SPINNER 16 TIMES AND RECORD THE RESULTS HERE:	WHAT IS THE PROBABILITY OF SPINNING "TIGER"?
1.　　　　　9.	
2.　　　　　10.	WHAT IS THE PROBABILITY OF SPINNING "LEOPARD"?
3.　　　　　11.	
4.　　　　　12.	
5.　　　　　13.	WHAT IS THE PROBABILITY OF SPINNING "OCELOT"?
6.　　　　　14.	
7.　　　　　15.	
8.　　　　　16.	WHAT IS THE PROBABILITY OF SPINNING "PUMA"?

EXPERIMENTAL RESULTS	ANALYSIS QUESTIONS
HAT FRACTION OF SPINS WERE "TIGER"?	COMPARE THE THEORETICAL PROBABILITY WITH YOUR EXPERIMENTAL RESULTS.
AT FRACTION OF SPINS WERE "LEOPARD"?	
T FRACTION OF SPINS WERE "OCELOT"?	
T FRACTION OF SPINS WERE "PUMA"?	