

Probability – Worksheet #4



A. Coin Flip

- 1) What is the theoretical probability that the coin will land on tails?
- 2) What is the theoretical probability that the coin will land on heads?
- 3) If the coin is flipped 140 times, how many times would you predict that the coin lands on heads?
- 4) Johnny flipped a coin 450 times. His results are below:

Heads	Tails
240	210

What is the **experimental** probability that the coin lands on heads?

B. Roll of the Die (6-sided)

- 5) $P(4) =$
- 6) $P(3 \text{ or } 5) =$
- 7) $P(\text{not a } 2) =$
- 8) $P(\text{odd}) =$
- 9) If the die is rolled 300 times, how many times would you predict a roll of a 1 or a 6?
- 10) Johnny rolled the die 1,500 times. His results are below:

# on die	1	2	3	4	5	6
Times rolled	230	245	300	280	215	230

What is the **experimental** probability that the die will land on a 4?

Probability – Worksheet #4

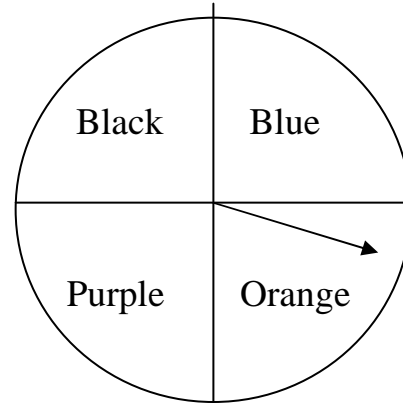
C. Spinners

11) $P(\text{black}) =$

12) $P(\text{not orange}) =$

13) $P(\text{blue or black}) =$

14) If the spinner is spun 40 times, how many times would you predict a spin of something that is not purple?



15) Johnny spins the spinner 60 times. His results are below:

Color	Black	Blue	Orange	Purple
Times Spun	17	15	21	7

a) What is the **experimental** probability of a spin of orange?

b) Which color had an experimental probability that matched its theoretical probability?

D. Multiple Choice.

16) Neil tossed a 6-sided die 90 times. The results of his tosses are recorded in the table below:

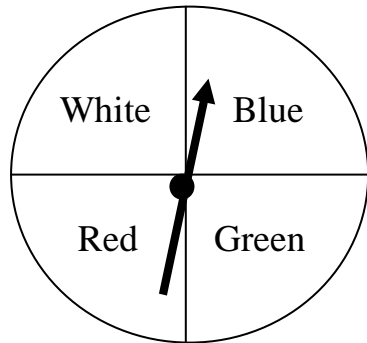
Number	Times tossed
1	13
2	15
3	14
4	12
5	18
6	18

What number had an experimental probability that matched its theoretical probability?

- A 2
- B 3
- C 4
- D 5

Probability – Worksheet #4

Bradley spun the spinner 40 times and recorded his results in the table.



Color	Frequency
Blue	12
Green	6
Red	9
White	13

- A. For a single spin, what is the theoretical probability of spinning green?
- B. For two consecutive spins, what is the theoretical probability of spinning a red first AND a blue second?
- C. According to the table, what was the **experimental** probability of spinning blue?
- D. According to the table, what color had an **experimental** probability closest to its theoretical probability?
- E. If Bradley spins the spinner 200 times, how many times would you predict the spinner lands green?
- F. EXPLAIN in your own words what the difference is between theoretical probability and experimental probability.