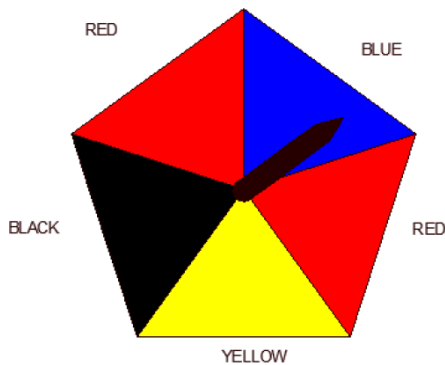


1. Decide whether you would describe these events as ‘impossible’, ‘not likely’, ‘likely’ or ‘certain’.
 - a. The Sun will set tonight.
 - b. Tomorrow will have a maximum temperature of -20 °C.
 - c. You roll an ordinary six-sided die and the result is 1.

2. A six-sided die is rolled.
 - a. If the die is rolled, what are the different numbers that could come up?
 - b. Your answer to part (a) is the sample space. It doesn’t require any numbers or repeating any words to show how many there are. It just lists the possible results. Write your answer using sample space notation $S = \{ \text{_____} \}$
 - c. How *many* different results are possible?
 - d. Write the number of results using the notation: $n(S) = \underline{\hspace{1cm}}$

3. What are the different outcomes of spinning the following spinner? List the sample space.



4. Write the sample space for each of the following, remember to use the proper notation $S = \{ \dots \}$
 - a. A ten-sided die is rolled once
 - b. The spinner shown on the right is spun once.
 - c. One marble is selected from a bag containing 4 black marbles, 3 green marbles and 2 blue marbles.



5. Use the following terms to describe each of the following probabilities expressed as percentages—

Highly unlikely	Unlikely	Even chance	More likely than not	Likely	Highly likely
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- | | | |
|--------|--------|--------|
| a. 3% | c. 75% | e. 52% |
| b. 50% | d. 60% | f. 26% |

6. The numbers 1–10 are written on note cards and placed in a bag. One card will be drawn from the bag at random.
 - a. List the sample space for this experiment.
 - b. Are the events selecting an even number and selecting an odd number equally likely? Explain your answer.
 - c. Are the events selecting a number divisible by 3 and selecting a number divisible by 5 equally likely?

Explain your answer.

7. Consider an experiment of randomly selecting a letter from the word *number*.
 - a. What is the sample space? List the probability of each outcome in the sample space.
 - b. What is $P(\text{vowel})$?
 - c. What is $P(\text{z})$?