Problem: A spinner has 4 equal sectors coloured yellow, blue, green and red.

What are the chances of landing on blue after spinning the spinner?

What are the chances of landing on red?

This problem asked us to find some probabilities involving a spinner. Let’s look at some definitions and examples from the problem above.

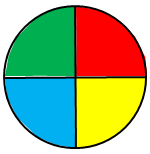
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| **Term** | **Definition** | **Example** |
| Experiment | An **experiment** is a situation involving chance or probability that leads to results called outcomes. | In the problem above, the experiment is spinning the spinner. |
| Outcome | An **outcome** is the result of a single trial of an experiment. | The possible outcomes are landing on yellow, blue, green or red. |
| Sample Space | The **sample space** is the list of all possible outcomes. Notation is ‘omega’ |  |
| Event | An **event** is one or more outcomes of an experiment.  This is also known as a **subset** of the sample space | One event of this experiment would be landing on blue |
| Simple Event | A **simple event** has only one outcome |  |
| Probability | **Probability** is the measure of how likely an event is. | The probability of landing on blue is one fourth |

In order to measure probabilities, mathematicians have devised the following formula for finding the probability of an event:

|  |  |
| --- | --- |
| **Probability of an Event P(A)** | |
|  | The number of ways event A can occur |
| The total number of possible outcomes |

Challenge your Thinking:

What is the probability of landing on NOT blue?

 This can also be read as “What is the probability of landing on red or green or yellow?”

Try It:

1. What is the probability of landing on “green”?
2. What is the probability of landing on “not red”?
3. What is the probability of drawing the ace of hearts from a deck of cards?
4. What is the probability of drawing an ace from a deck of cards?
5. What is the probability of drawing an even card from a deck of cards? (face cards are not included as even)