Extending Probability Essential information

- Two events are ***independent*** if one event happening does not affect the probability of the other event.

  For example, rolling the first dice to obtain a SIX and the second dice to obtain an EVEN number.

- If two events cannot happen or take place at the same time, they are said to be ***mutually exclusive***.

  For example, rolling a dice when one event is 'obtaining a SIX' and the other event is 'obtaining a number less than FOUR'.

- For two ***independent*** events, A and B, then $p(\text{A and B}) = p(\text{A}) \times p(\text{B})$

- If events A and B are ***mutually exclusive*** events, then $p(\text{A or B}) = p(\text{A}) + p(\text{B})$