

## Probability of One Event (review of Y7 material)

### Starter

1. (Review of last lesson) Rearrange to make  $x$  the subject of the formula  $a = 2b(x + c)$

### (Review of Year 7 Probability)

2. How can answers be expressed in probability questions?
3. Poppy does a probability question and gets an answer of 1.2. How does she know she is wrong?
4. Assign the following words probabilities: *certain, evens, impossible, likely, possible*.
5. I roll a fair six-sided dice three times and each time get a 6. What is the probability of getting a 6 next time?
7. The probability of winning a match is  $\frac{5}{7}$ . What is the probability of not winning the match?

### Notes

Basic probability facts:

Probability of an event =  $\frac{\text{number of successful outcomes}}{\text{total number of outcomes}}$

Probability of an event not happening =  $1 - \text{probability of the event happening}$

Probability of an event happening =  $1 - \text{probability of the event not happening}$

The sum of the probabilities is 1.

### Notation

Use the  $P(\text{event}) =$  notation in your working out.

**E.g. 1** A fair 6-sided dice is rolled. Find the probability of rolling:

- (a) a 5      (b) an even number      (c) a multiple of 3      (d) a prime number

**Working:** (a)  $P(5) = \frac{1}{6}$

(b) There are three even numbers so  $P(\text{even}) = \frac{3}{6} = \frac{1}{2}$

**E.g. 2** In a game there are four types of card. These are the probabilities of getting each card:

$$P(\text{Luck card}) = \frac{1}{8}$$

$$P(\text{Doom card}) = \frac{1}{4}$$

$$P(\text{Wealth card}) = \frac{1}{2}$$

$$P(\text{Lose money card}) = ?$$

- (a) What is the probability of getting a lose money card?  
(b) What is the probability of not getting a luck card?

**E.g. 3** The probability of Jack getting a hole in one at crazy golf is  $\frac{2}{5}$ . What is the probability of him not getting a hole in one?

Video: [Probability scale](#)  
Video: [Probability - single event](#)

[Solutions to Starter and E.g.s](#)

### Exercise

p168 Ex 10.1 Qu 1-10

### Summary

Probability of an event =  $\frac{\text{number of successful outcomes}}{\text{total number of outcomes}}$

Probability of an event not happening =  $1 - \text{probability of the event happening}$

The sum of the probabilities is 1.

[Textbook answers \(only available during a lockdown\)](#)