# Equally likely outcomes and frequencies

## Learn and practise | Free preview

A sample from this topic. The complete topic collection contains three different resources and worked solutions.

Show your thinking using words, working or a labelled drawing. Use the explanations and example first.

## What you will practise

• Equally likely outcomes and frequencies

• Explain and check an answer with an appropriate representation.

Useful starting skills: Use objects, drawings or a number line to explain a simple idea.

Start by listing what can happen and stating the chance model. A fair device has specified equally likely elementary outcomes; categories formed from those outcomes need not have equal chances.

Record trials systematically and compare frequencies. Chance experiments vary from run to run. Repeating more trials can reveal a pattern, but it does not guarantee a particular next outcome or exact total.

## Worked example

A bag contains 6 red and 2 blue identical counters. Which colour is more likely?

There are more red counters among the eight equally selectable counters.

Red is more likely, but blue can still occur.

Answer: Red

## Try it yourself

Name: _____ Date: _____

1. A fair die has faces 1–6. List its equally likely outcomes.

2. A bag has 4 red and 1 blue identical counters. Are the colour outcomes equally likely?

## Answers and explanations

Check the method as well as the final answer. An alternative correct method is also valid.

1. 1, 2, 3, 4, 5, 6

Each face has the same chance under the fair-die model.

2. No

Although two colours are possible, red has four favourable counters and blue only one.

Curriculum reference: VC2M5P01; VC2M5P02

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