

8 The probability scale – Part 1

Name: _____ Class: _____ Date: _____

Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

English	中文	Write it 3 times (English)
Probability	概率	_____
fraction	分数	_____

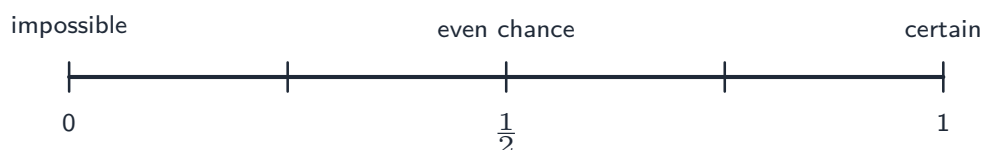
Recall

Probability 概率 measures how likely something is. It is a number from 0 (impossible) to 1 (certain).

New ideas

Read these first, then do the Practice.

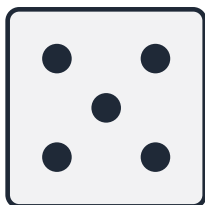
■ 1 The probability scale



A probability can be a **fraction** 分数, a decimal or a percentage.

■ 2 Working out a probability

$$P(\text{event}) = \frac{\text{number of ways it can happen}}{\text{total number of outcomes}}$$



$$\begin{aligned} P(\text{rolling a 3}) \\ &= \frac{1}{6} \end{aligned}$$

Watch out: a probability is always between **0** (impossible) and **1** (certain) — never more than 1 or negative. Work it out as $\frac{\text{ways it can happen}}{\text{total outcomes}}$.

Practice

Try these in order.

8.1 What is the probability of an *impossible* event? [1]

8.2 What is the probability of a *certain* event? [1]

8.3 A fair coin is flipped. What is the probability of Heads? [1]

8.4 A fair dice is rolled. What is the probability of getting a 5? [1]

8.5 A bag has 3 red and 2 blue balls. What is the probability of picking a red ball? [2]

8.6 Challenge. A bag has 3 red, 2 blue and 5 green balls. Find the probability of picking (a) a green ball, (b) a ball that is *not* red. [3]