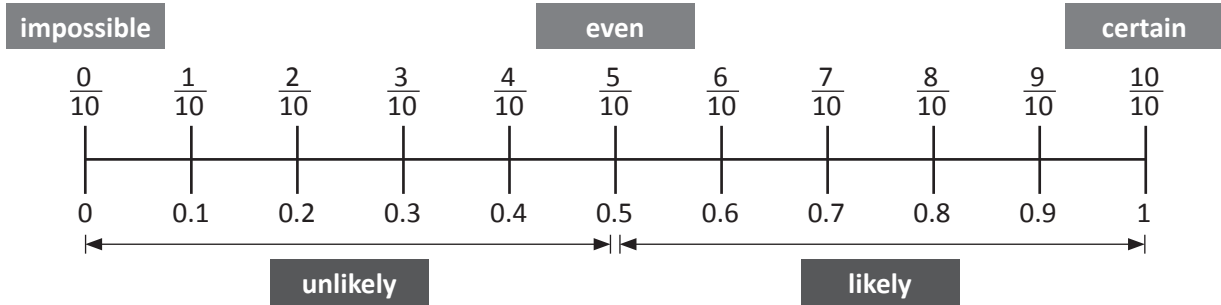


Chance and probability – probability scale

Probability measures how likely something is to happen.



- 1 Probability measures how likely something is to happen. Events that are certain to happen are given a probability of 1. Events that will never happen are given a probability of 0. Events that could happen are rated between 0 and 1.

Event	Probability as a fraction	Probability as a decimal
When you flip a coin, it will land on heads.		
You will grow wings and fly today.		
A spinner with 10 even segments with the numbers 1 to 10 will land on 3.		
5 people are lined up and every second person in the line has gloves on. What is the chance that one person is not wearing gloves?		
You have 20 cards. 5 have hearts, 5 have stripes and the rest are blank. What is the chance you will choose a blank card?		

- 2 What is the probability of spinning a striped segment on each of these wheels? Write your answer as a rating between 0 and 1 using decimals.

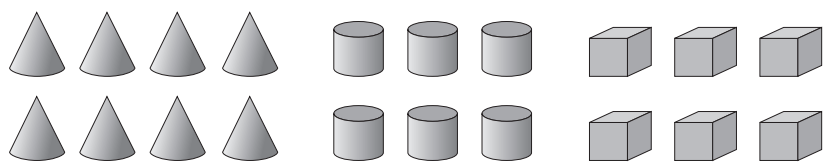
a

b

c

d

- 3 Reuben is going to put ten blocks in a bag and ask a friend to choose one without looking. Circle the blocks he could put in the bag to make the probability of choosing a cube $\frac{2}{10}$.

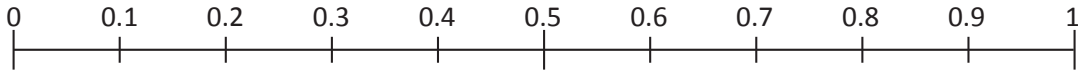


Chance and probability – probability scale

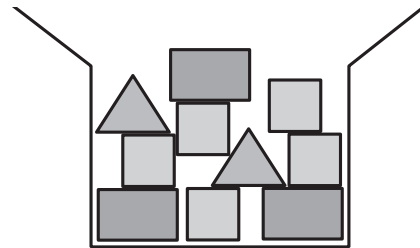
- 4 100 guests each buy a ticket for a raffle at a fundraising dinner. The winning ticket will be selected at random. This table on the right shows the colours of all of the tickets in the raffle.

Red	10
Purple	40
Orange	50
Total	100

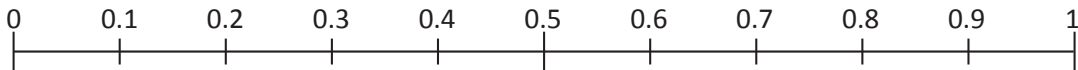
What is the probability of the winning ticket being red, purple or orange? Draw arrows on this probability scale to show the probability of each colour and write the colour beneath the arrow.



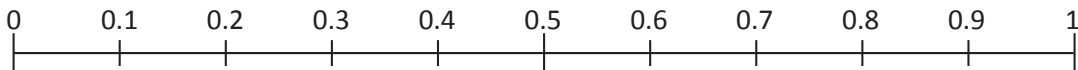
- 5 Inside a box there are 3 rectangles, 2 triangles and 5 squares. Without looking, Ellie chooses one shape from the box.



- a Draw each shape on this probability scale to show the probability of Ellie choosing each type of shape.



- b 3 more rectangles, 2 more triangles and 5 more squares are added to the same box. Draw each shape on this probability scale to show the probability of Ellie choosing each shape from the box.



- c What do you notice? _____

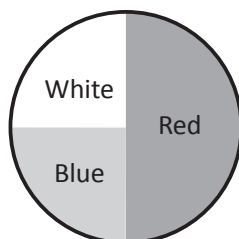
- 6 Sam did an experiment with 10 cubes that were either red, white or blue. She took a cube from a jar without looking, tallied which colour it was then put it back in the same jar. She repeated the process 20 times. After tallying her results, she created this pie chart to show the results of the experiment.

- a How many times did Sam take each colour out of the jar? Remember she performed the experiment 20 times.

Red

White

Blue



- b Draw the combination of cubes there could have been inside the jar. Remember there are only 10 cubes.

