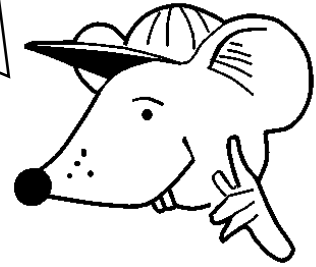


1.

You should be able to give a number to a probability. These numbers must be between **0** and **1**. They may be fractions or decimals.

Eg. The probability of getting a head when you toss a coin is $\frac{1}{2}$, but this can be written as **0.5**



Can you give a number for the probability of these events happening?

- a) Throwing a die and getting a 2.
- b) Throwing a die and getting an even number.
- c) Throwing a die and getting a zero.
- d) Throwing a die and getting a number greater than 4.
- e) Throwing a die and getting a 1, 2, 3, 4, 5 or 6.
- f) Tossing a coin and getting a tail.
- g) Tossing a coin and getting a 5.
- h) Tossing a coin and getting a head or a tail.
- i) Choosing a heart from a pack of cards.
- j) Choosing the six of spades from a pack of cards.
- k) Choosing one person in your class at random and that person being a girl.

1.

Here are some simple experiments. Think about them carefully and then work out the probability of the event happening.



- a) A bag contains six blue balls and four green balls. One ball is chosen without looking at its colour. What is the probability it is green?
- b) A spinner has the numbers from 1 to 20 on it. If it is spun, what is the probability of getting an even number?
- c) A spinner has the numbers from 1 to 20 on it. If it is spun, what is the probability of getting a prime number?
- d) A milkcrate contains ten red top and four silver top bottles of milk. A bird lands on one of the milk bottles. What is the probability it lands on a silver top?
- e) Twenty cards are laid out on a table. Four are green. Six are yellow. Ten are blue. A boy throws a dart at the table. If the dart hits one of the cards, what is the probability it is a yellow card?
- f) Six boys and five girls are in a lift. One of the children feels ill. What is the probability it is one of the boys?
- g) A factory has sixteen workshops. Accidents happened in three of them today. What is the probability of working in a workshop which had an accident?
- h) In a batch of 1 000 nails, twelve were faulty. If one of the nails is chosen at random, what is the probability it is a faulty one?

Now draw a probability line from 0 to 1 and put the above events on the line in the correct places.

Answers**Page 1**

1. Probabilities here are given as fractions, but equivalent decimals are just as valid.

- a)** $1/6$ **b)** $1/2$ or $3/6$ **c)** 0 **d)** $2/6$ or $1/3$ **e)** 1 or $6/6$ **f)** $1/2$ **g)** 0
h) 1 or $2/2$ **i)** $1/4$ or $13/52$ **j)** $1/52$ **k)** depends on class.

Page 2

1. Probabilities here are given as fractions, but equivalent decimals are just as valid.

- a)** $4/10$ or $2/5$ **b)** $1/2$ or $10/20$ **c)** $8/20$ or $2/5$ **d)** $4/14$ or $2/7$ **e)** $6/20$ or $3/10$
f) $6/11$ **g)** $3/16$ **h)** $12/1000$ or $3/250$