

PROBABILITY

Exercise 1

Choose one word for each event:

IMPOSSIBLE

UNLIKELY

LIKELY

CERTAIN

- Tomorrow will be Christmas day
- I will have pizza for dinner tonight
- It will be very hot tomorrow
- I will be in school tomorrow
- I will be in Disneyworld tonight
- It will get dark tonight
- I will be in bed by midnight tonight
- Tomorrow will be my birthday
- The grass will be purple tomorrow

Exercise 2

0 stands for IMPOSSIBLE and 1 for a CERTAIN event.

– means there is an EQUAL chance of an event happening.

What is the probability that:



- The grass will be blue tomorrow
- You will breathe today
- Tossing a coin will get you a tail
- Rolling a die will get you an even number
- Rolling a die will get you an odd number

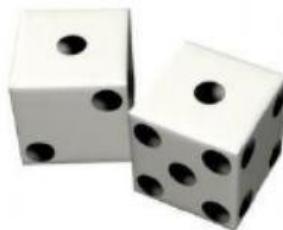
Exercise 3



4 If a letter is chosen at random from the word PENELOPE, what is the probability that it will be:

a) the letter E? b) the letter P?

c) a vowel? d) a consonant?



5 When a die is rolled what is the probability that the outcome is :

a) the number 5 ? b) an even number ? c) an odd number ?

6 A game consists of spinning an arrow which is equally likely to land on 1,2,3,4,5. What is the probability it will point to :

a) an even number? b) an odd number? c) the number 3 ?

7 There are 30 pupils in a class. 15 have blue eyes, 10 have brown eyes and 5 have green. What is the probability that a pupil will have:

a) blue eyes b) green eyes? c) brown eyes?

8 A box contains 10 white beads and 20 black beads. If a bead is drawn what is the probability that it is :

a) white b) black?

9 If a letter is chosen at random from the word WOODWORK, what is the probability that it will be:

a) the letter O? b) the letter W? c) a consonant?

10 If a letter is chosen at random from the word NEEDLEWORK, what is the probability that it will be:

a) the letter E? b) a vowel? c) a consonant?

11 When a card is drawn at random from a pack of 52 playing cards, what is the probability that it is:

a) an ace? b) a heart? c) the ace of spades? d) a king, queen or jack?



12 There are 50 cars of the same make in a showroom. 18 are blue, 15 white, 10 green, 7 red. If it is equally likely any one of them will be sold, what is the probability that it will be:

- a)** white?
- b)** green?
- c)** red or blue?
- d)** neither red nor blue?

Exercise 4



- 1) Five cards-10, jack, queen, king, ace- are shuffled face down. One of the cards is picked at random.

 - a) What is the probability that the ace is picked?
 - b) If the jack is drawn, and kept out, what is the probability that the next card chosen will be an ace?

- 2) A bag contains 5 white marbles, 3 black and 2 red.

 - a) What is the probability that if one marble is chosen at random it will be white?
 - b) If a white marble is chosen, and not replaced, what is the probability that a black marble will be chosen next?

- 3) A bag contains 6 red counters and 10 green counters.

 - a) If a counter is removed what is the probability that it is red?
 - b) If the counter was red and it was not replaced what is the probability that the next counter to be picked out would also be red?



4) A bag contains 1 red counter and 5 green counters.

- If a counter is removed what is the probability that it is red?
- If the counter was red and it was not replaced what is the probability that the next counter to be picked out would also be red?

5) A bag contains 5 red counters and 12 green counters.

- If a counter is removed what is the probability that it is red?
- If the counter was red and it was not replaced what is the probability that the next counter to be picked out would also be red?



6) A bag contains 8 red counters and 5 green counters.

- a) If a counter is removed what is the probability that it is red?
- b) If the counter was red and it was not replaced what is the probability that the next counter to be picked out would also be red?