JustMaths

Katie has a six-sided die with numbers 1 to 6 on the faces, which she suspects is biased. She throws the die a large number of times to estimate the probability of getting each number. She shows her results in this table.

| Number | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Probability | 0.12 | 0.15 | 0.12 | 0.14 | 0.16 | 0.31 |

double this check :D

Complete the table.

$0.12 + 0.15 + 0.12 + 0.14 + 0.16$
$= 0.69$

$1 - 0.69 = 0.31$

(2)

JustMaths

Riki has a packet of flower seeds.

The table shows each of the probabilities that a seed taken at random will grow into a flower that is pink or red or blue or yellow.

| Colour | Pink | Red | Blue | Yellow | White |
|---|---|---|---|---|---|
| Probability | 0.15 | 0.25 | 0.20 | 0.16 | 0·24 |

(a) Work out the probability that a seed taken at random will grow into a white flower.

0·15 + 0·25 + 0·20 + 0·16 = 0·76

1 − 0·76 = 0·24

(2)

There are 300 seeds in the packet. All of the seeds grow into flowers.

(b) Work out an estimate for the number of red flowers.

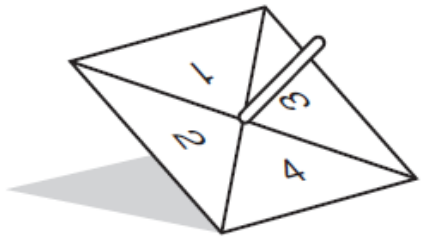
0·25 25% $\frac{1}{4}$

of 300 = 75

(2)

JustMaths

A biased spinner is numbered 1 to 4.




(a) Complete the table to show the probability of getting 4.

| Score | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Probability | 0.30 | 0.25 | 0.20 | 0.25 |

$0.30 + 0.25 + 0.20 = 0.75$

$1 - 0.75 = 0.25$

(2)

(b) Connor spins the spinner 200 times. How many times might he expect to get 1?

probability $= 0.3 = 30\%$

$10\%$ of $200 = 20$

$30\% = 60$

(2)

(c) Work out the probability that the spinner lands on either 2 or 3.

$0.25 + 0.20$

$= 0.45$

(2)

There are only red counters, blue counters, white counters and black counters in a bag. The table shows the probability that a counter taken at random from the bag will be red or blue.

| Colour | Red | Blue | White | Black |
|---|---|---|---|---|
| Probability | 0.2 | 0.5 | 0·15 | 0·15 |

The number of white counters in the bag is the same as the number of black counters in the bag.

Tania takes at random a counter from the bag.

(a) Work out the probability that Tania takes a white counter.

0·20 + 0·50 = 0·70

1 − 0·70 = 0·30

0·30 ÷ 2 = 0·15

(2)

There are 240 counters in the bag.

(b) Work out the number of red counters in the bag.

Red is 0·2 = 20%

10% = 24

20% = 48

= 48

(2)