

- ① The probability that a biased dice will land on 6 is 0.3
The dice is going to be rolled 200 times.
work out an estimate for the number of times the dice will land on 6.

$$0.3 \times 200 = 60$$

Ans = 60 times

- ② The Probability that Frank scores a Penalty is 0.86
Frank is going to take 50 penalties
work out an estimate for the number of times Frank will score

$$0.86 \times 50 = 43$$

Ans = 43 times

- ③ In a bag there are only red, blue and white counters
A counter is taken at random from the bag.

colour	Red	Blue	white	yellow
Probability	0.5	0.3	0.2	

complete the table to show the Probability that counter will be white

$$0.5 + 0.3 = 0.8$$

$$0.8 - 1 = 0.2$$

Ans = 0.2

- ④ A biased spinner can land on red, blue, yellow and green

colour	Red	Blue	Yellow	Green
Probability	0.25	0.34	0.22	

complete the table to show the Probability that spinner will land on green

$$0.25 + 0.34 + 0.22 = 0.81$$

$$1 - 0.81 = 0.19$$

$$\text{Ans} = 0.19$$

- ⑤ A biased spinner can land on red, blue, yellow and green.

The table shows the Probabilities that the spinner will land on red and yellow

colour	Red	Blue	Yellow	Green
Probability	0.18	0.28	0.26	0.28

The Probability of landing on blue is the same as the Probability of landing on green, complete the table to show the Probability of spinner landing on blue and green.

$$1.0 - 0.18 - 0.26 = 0.56$$

$$0.56 \div 2 = 0.28$$

$$\text{Ans} = 0.28$$

⑥ A biased spinner can land on red, blue, yellow and green

Colour	Red	Blue	Yellow	Green
Probability	0.3	0.25	0.15	0.3

$$0.3 + 0.25 + 0.15 = 0.7$$

$$1 - 0.7 = 0.3$$

$$\boxed{\text{Ans} = 0.3}$$

⑥ Kelly is going to spin the spinner 60 times
work out an estimate for the number of times the spinner will
land on red.

$$60 \times 0.3 = 18$$

$$\boxed{\text{Ans} = 18 \text{ times.}}$$

⑦ The table shows the probabilities that a biased dice will land on 1, 2, 3, 5, 6

num	1	2	3	4	5	6
Probability	0.14	0.2	0.08	0.24	0.13	0.21

The dice is rolled 200 times, work out an estimate it will land on 2 or 4

$$1 - 0.14 - 0.2 - 0.08 - 0.13 - 0.21 = 0.24$$

$$0.2 + 0.24 = 0.44$$

$$200 \times 0.44 = 88$$

$$\boxed{\text{Ans} = 88}$$