Question Sheet: Probability 2/ Relative Freq | M6

Name:

Questions are ordered by increasing difficulty. If you are confused, please rewatch the lesson recording before contacting your tutor. Please submit the assignment prior to the deadline to allow time for marking and corrections. Please attempt all questions.

1. The probability that a biased dice will land on a 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.

$0.3 \times 200 = 60$

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.

$0.86 \times 50 = 43$

3. In a bag there are only red counters, blue counters and white counters

A counter is taken at random from the bag.

The table shows the probability of the counter being red and blue.

Colour	Red	Blue	White
Probability	0.5	0.3	

Complete the table to show the probability that counter will be white.

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

The table shows the probabilities that the spinner will land on red, blue and yellow.

Colour	Red	Blue	Yellow	Green
Probability	0.25	0.34	0.22	0.19

Complete the table to show the probability that spinner will land on green.

$0.25+0.34+$

$0.22=0.81$

$1-0.81=0.19$

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 probabilities of spinner landing on blue and green.

$0.18 + 0.26 = 0.44$

$1 - 0.44 = 0.56$

$0.56 \div 2 = 0.28$

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

The table shows the probabilities that the spinner will land on red, blue and yellow.

Colour	Red	Blue	Yellow	Green
Probability	0.3	0.25	0.15	0.3

(a) Complete the table.

Kelly is going to spin the spinner 60 times.

(b) Work out an estimate for the number of times the spinner will land on red.

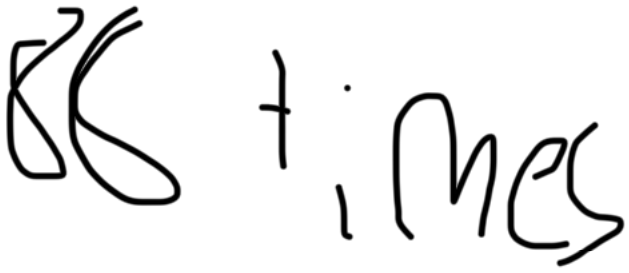
$0.3 \times 60 = 18$

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

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

The dice is rolled 200 times.

Work out an estimate for the number of times the dice will land on 2 or on 4.



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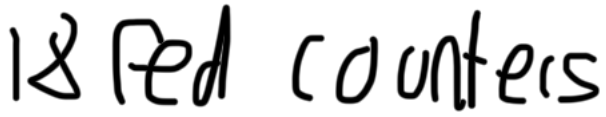
8. In a bag there are only red counters, blue counters, green counters and yellow counters.

A counter is taken at random from the bag.

The table shows the probabilities that the counter will be green or will be yellow.

Colour	Red	Blue	Green	Yellow
Probability			0.35	0.20

The probability that the counter will be red is twice the probability that the counter will be blue.

There are 21 green counters in the bag.

Work out the number of red counters in the bag.