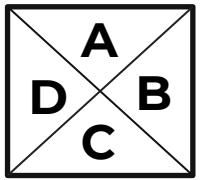
Calculate experimental probabilities and make predictions (relative frequency)

Maths

Mrs Dennett

Calculate experimental probabilities and make predictions (relative frequency)

1. Mo spins this spinner 20 times.



His results are below.

B D A A A
A C D B D
C A B B B
D B D C B

a) Record his results in the relative frequency table.

	A	B	C	D
Relative Frequency				

b)The spinner is spun 100 times. Estimate the number of times the spinner will land on B.

Calculate experimental probabilities and make predictions (relative frequency)

2. Dan rolls a dice 30 times.
Emma rolls the same dice 150 times.
Here are their results.

	1	2	3	4	5	6
Dan	4	10	4	6	3	3
Emma	21	35	27	23	22	22

a) Do you think the dice is fair?
Explain your answer.

b) Emma says,

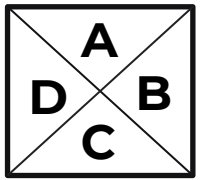
"My data is more reliable."

Do you agree?
Explain your answer.

Answers

Calculate experimental probabilities and make predictions (relative frequency)

1. Mo spins this spinner 20 times.



His results are below.

B D A A A
A C D B D
C A B B B
D B D C B

a) Record his results in the relative frequency table.

	A	B	C	D
Relative Frequency	$\frac{5}{20}$	$\frac{7}{20}$	$\frac{3}{20}$	$\frac{5}{20}$

b)The spinner is spun 100 times. Estimate the number of times the spinner will land on B.

35 times

Calculate experimental probabilities and make predictions (relative frequency)

2. Dan rolls a dice 30 times.

Emma rolls the same dice 150 times.

Here are their results.

	1	2	3	4	5	6
Dan	4	10	4	6	3	3
Emma	21	35	27	23	22	22

a) Do you think the dice is fair?

Explain your answer.

The dice appears to be biased towards 2 as it appears more in both trials.

b) Emma says,

"My data is more reliable."

Do you agree?
Explain your answer.

Yes- Emma has completed more trials.