



2 A fair 6-sided dice can land on the numbers 1, 2, 3, 4, 5, or 6.

Gemma rolls the dice once and records the number it lands on.

(a) Write down the name of the distribution that can be used to model the number that the dice lands on. (1)

Harpreet rolls the dice 10 times and records the number of times she rolls the number 6.

(b) Find the probability that Harpreet rolls the number 6 (1)  
(i) once (1)  
(ii) more than once (2)

Rauri suspects that the dice may not be fair and in fact be biased as the number 6

Rauri tests the dice by rolling it 90 times and he records the number 6 a total of 22 times.

(c) Carry out a suitable test to determine whether the dice is biased towards the number 6. You should state your hypothesis clearly and use a 5% level of significance. (4)

Lined area for student answers.

(Total for Question 2 is 8 marks)

















