

Exercise 1

Calc. : ✓

On a certain remote island, 25 per cent of the population have the gene Hs which is known to protect against malaria.

A random sample of 32 people have their blood tested to see if they have this gene.

1. Show that the sample will satisfy the conditions for a Bernoulli trial.	2 marks
2. Determine the probability that the number that are found to have <u>Hs</u> is:	
(a) Exactly 5	1 mark
(b) Fewer than 10	1 mark
(c) At least 6 but at most 12	2 marks
(d) More than the mean value for the distribution.	2 marks
3. Will the conditions for a Bernoulli trial always be true for the population of the island? Write one or two sentences to justify your answer.	2 marks

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3. Will the conditions for a Bernoulli trial always be true for the population of the island? Write one or two sentences to justify your answer.