

GCSE Statistics - Diagnostic test

Chloropleths

NAME: _____

1





James is studying plants in a field.
He divides the field into metre squares.
He counts the number of plants in each square.

This diagram shows his results.

2	6	6	7	9
5	6	8	11	12
8	9	12	14	15
7	11	13	15	15
12	11	12	15	16

- a) Use the grid below to draw a choropleth map for the data.

Key

	0 – 4 plants
	5 – 9 plants
	10 – 14 plants
	15 or more plants

(3 marks)

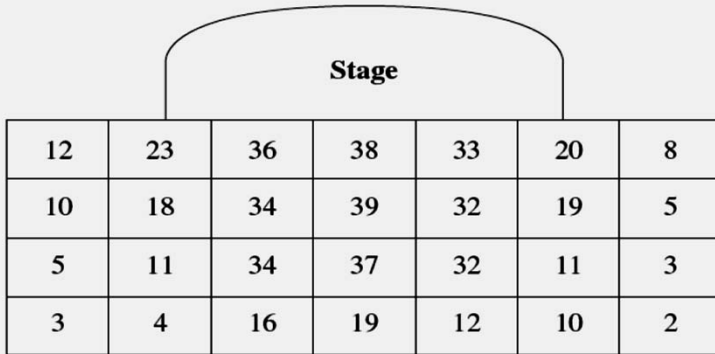
- b) Part of the field is often shaded by a tree.
This limits the number of plants that grow.

On your choropleth map, put a T in the square most likely to be shaded by this tree.

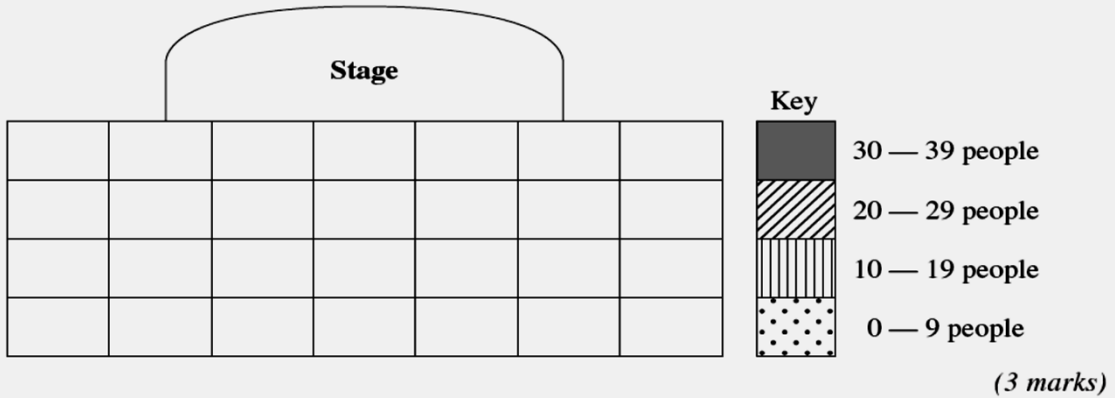
(1 mark)

2

A band is playing at a small open-air concert in a field.
 The organisers monitor the number of people in different areas of the field.
 They split the field into rectangles and count the number of people in each rectangle.
 The diagram shows the number of people in each rectangle.



(a) Use the Key to produce a choropleth (shading) map on the blank copy of the field below.



(b) Each person at the concert has a numbered ticket.
 One ticket is to be chosen at random to meet the members of the band backstage.
 Write a T in the rectangle which is most likely to contain the person with the chosen ticket.
(1 mark)

3

A bird reserve is divided into 16 regions of equal size.

The number of swans' nests in each region is counted.

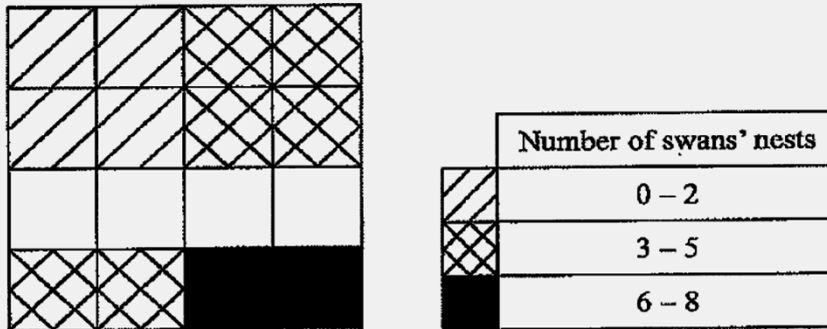
The results are shown in the following diagram.

0	0	3	3
1	2	4	3
2	1	4	6
3	5	7	8

5

 means 5 swans' nests in this region.

- (a) Use the information in the diagram to complete this choropleth map. 12 regions have already been shaded.



(1)

- (b) Describe how the swans' nests are spread across the bird reserve.

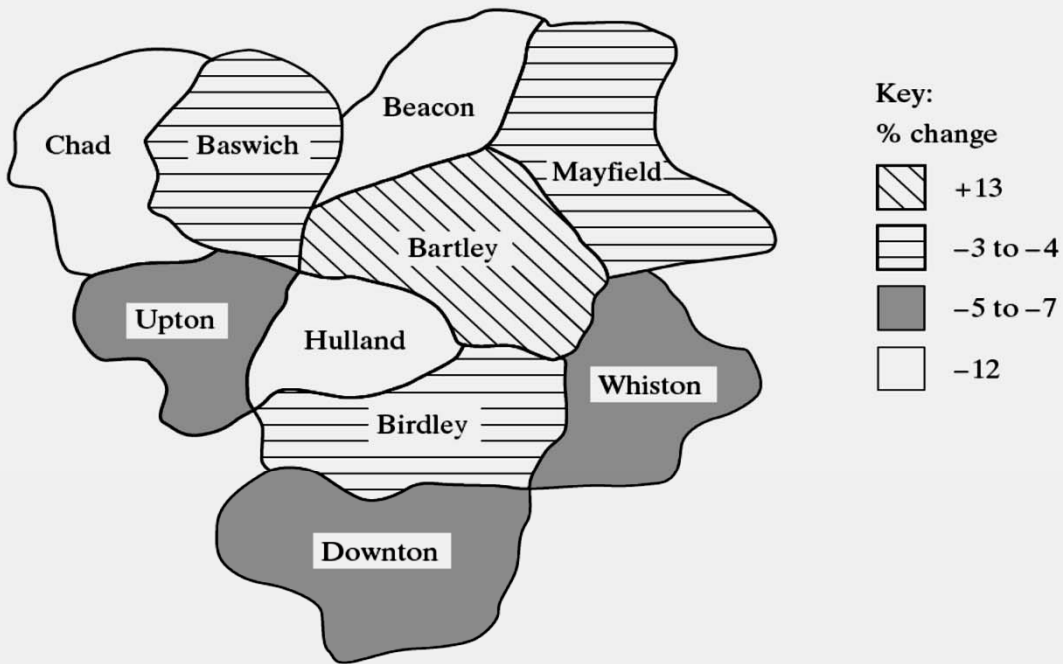
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(1)

(Total 2 marks)

4

The choropleth map (shading map) shows population changes in ten districts of a large city between 1991 and 2001.



(a) In which district has there been the largest population change?

Answer (1 mark)

(b) How many districts show a decrease in population of 5% or more?

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Answer (1 mark)

Total _____ out of 12