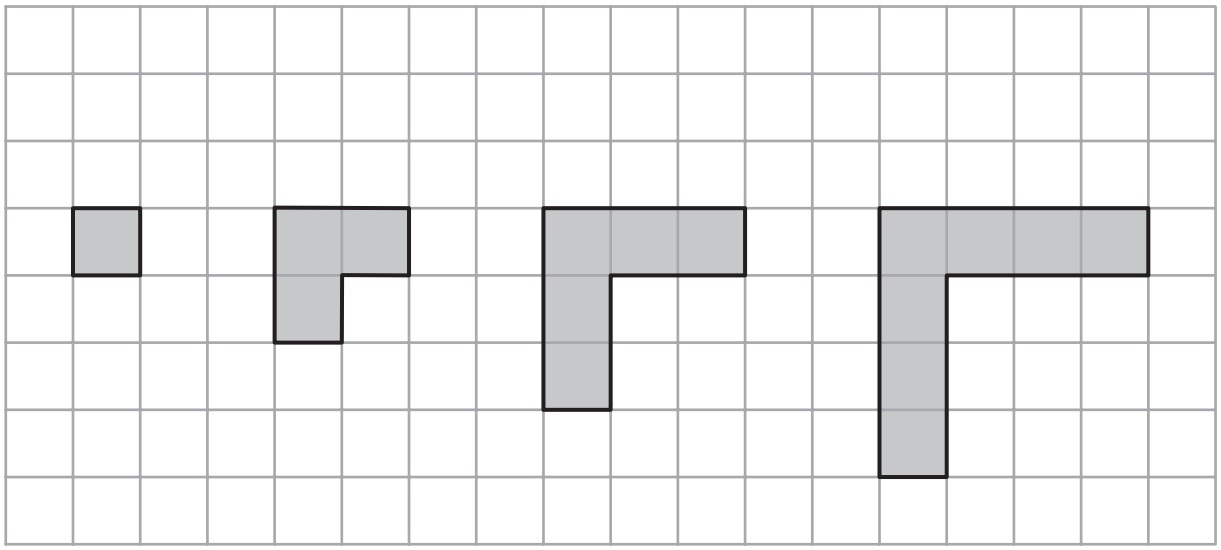
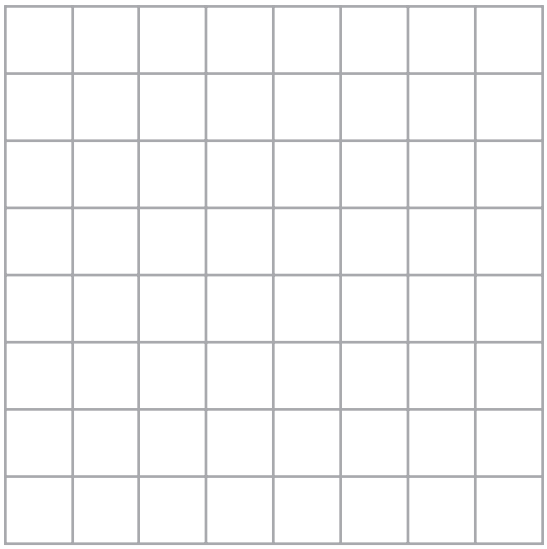
1 Here is a sequence of patterns made from grey square tiles.



Pattern number 1 | Pattern number 2 | Pattern number 3 | Pattern number 4

(a) On the grid below, draw Pattern number 5



(1)

(b) Complete the table.

Pattern number	1	2	3	4	5	6
Number of squares	1	3	5	7		

(1)

(Total for Question 1 is 2 marks)

2 Aleksy is using a map.

The map has a scale of 1 : 25 000

On the map a road has a length of 6 cm.

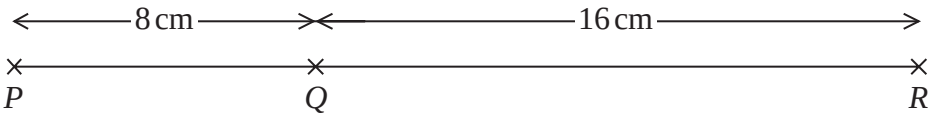
(b) Work out the length, in kilometres, of the real road.

..... kilometres

(3)

(Total for Question 2 is 3 marks)

3 The diagram shows three motorway service stations *P*, *Q* and *R* on a map.



The map has a scale of 1 cm = 4 km.

Work out the real distance from *P* to *R*.

..... km

(Total for Question 3 is 3 marks)

4 The diagram shows the position of town *T*.



Town *R* is 55 km from town *T* on a bearing of 065°

Mark the position of town *R* with a cross (×).
Use a scale of 1 cm to 10 km.

(Total for Question 4 is 2 marks)

5 A map has a scale of 1 cm represents 4 km.

On the map, the distance from town A to town B is 8 cm.

(a) Work out the real distance, in km, from town A to town B.

..... km

(2)

The real length of a road is 10 km.

(b) Work out the length of the road on the map.
Give the units of your answer.

.....

(2)

(Total for Question 5 is 4 marks)