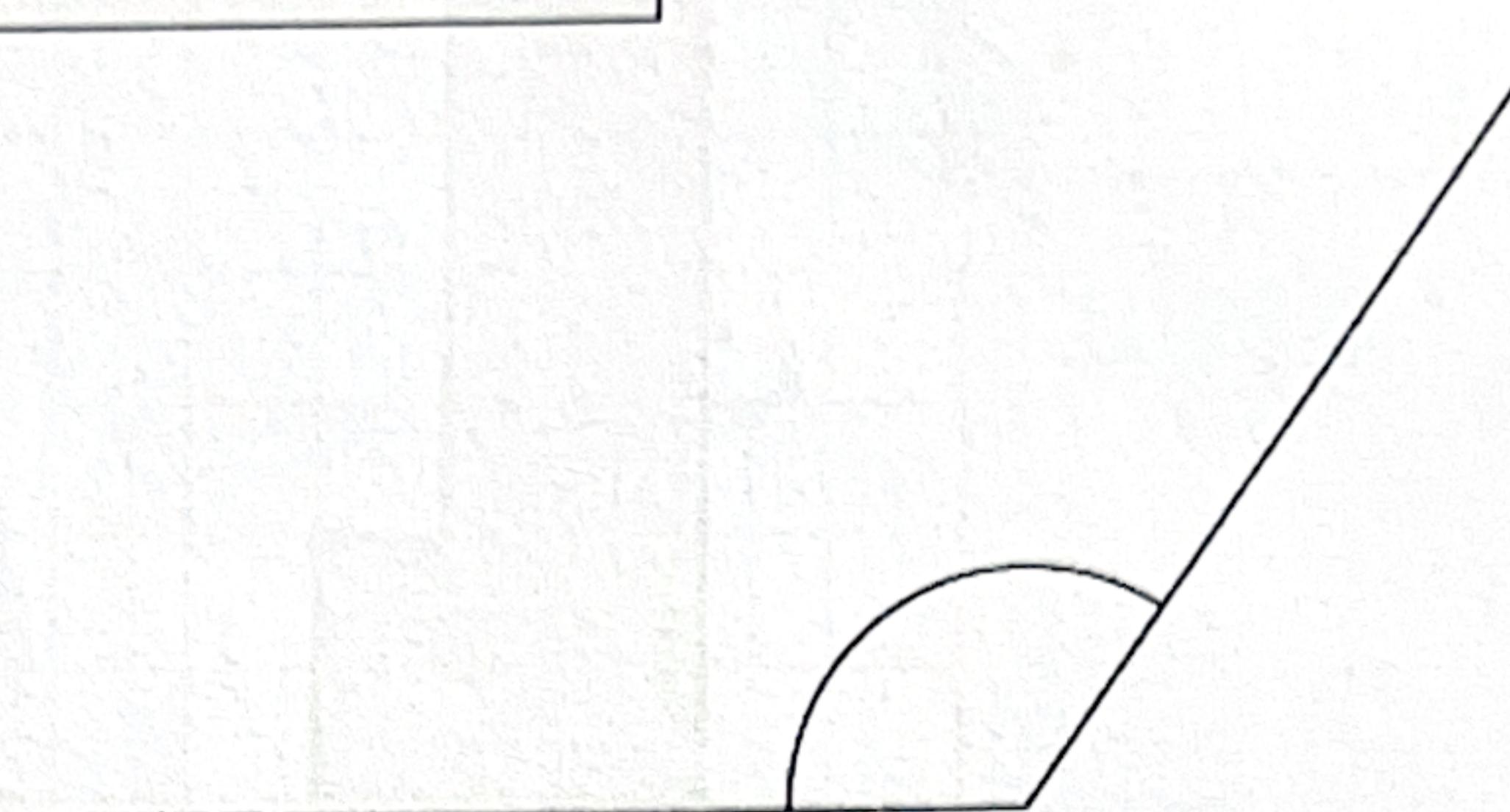


Q1. Here is an angle



(i) What type of angle is it?

.....obtuse.....

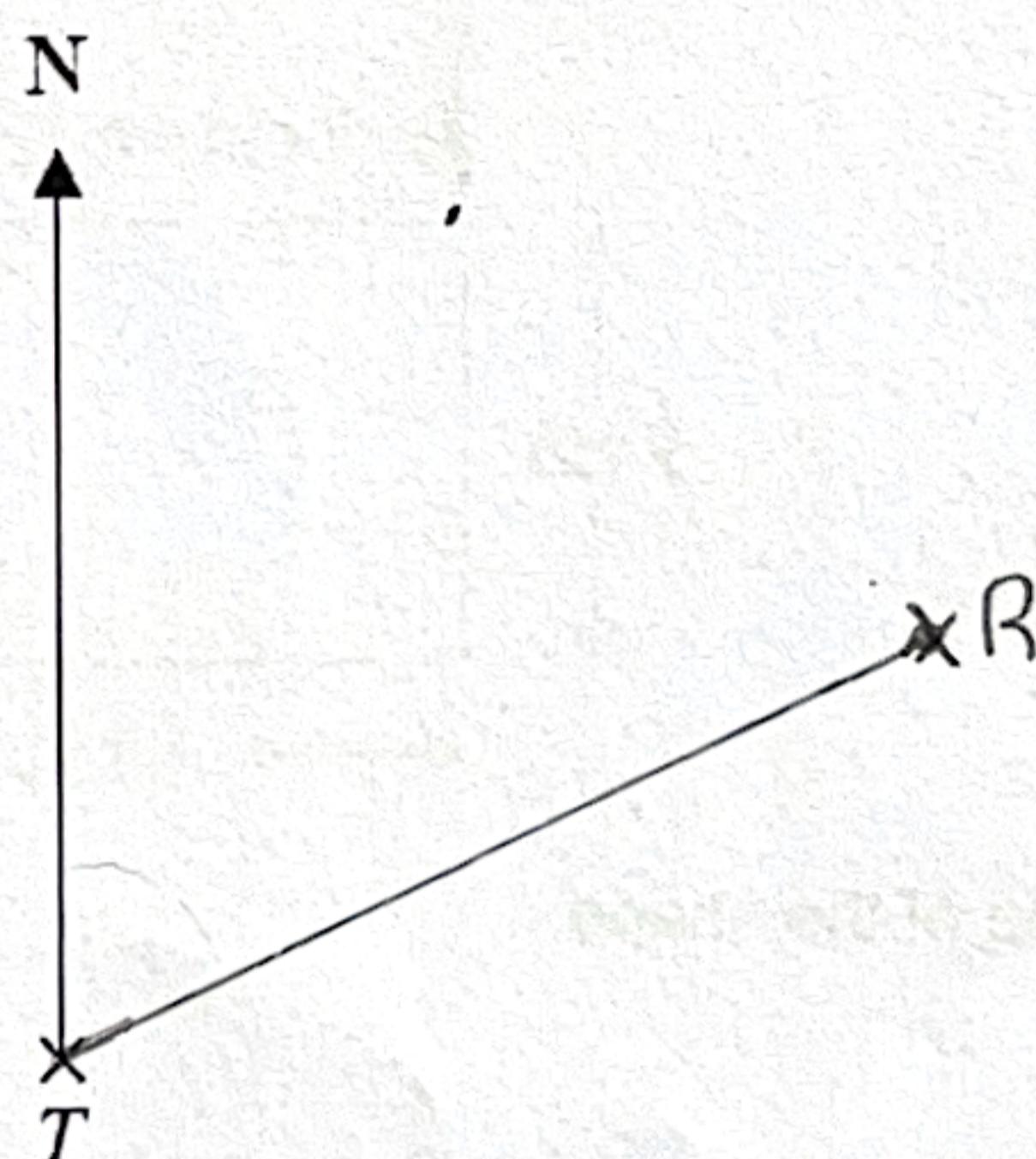
(ii) Measure the size of the angle.

125°

(Total for question = 2 marks)

Q2.

The diagram shows the position of town T.



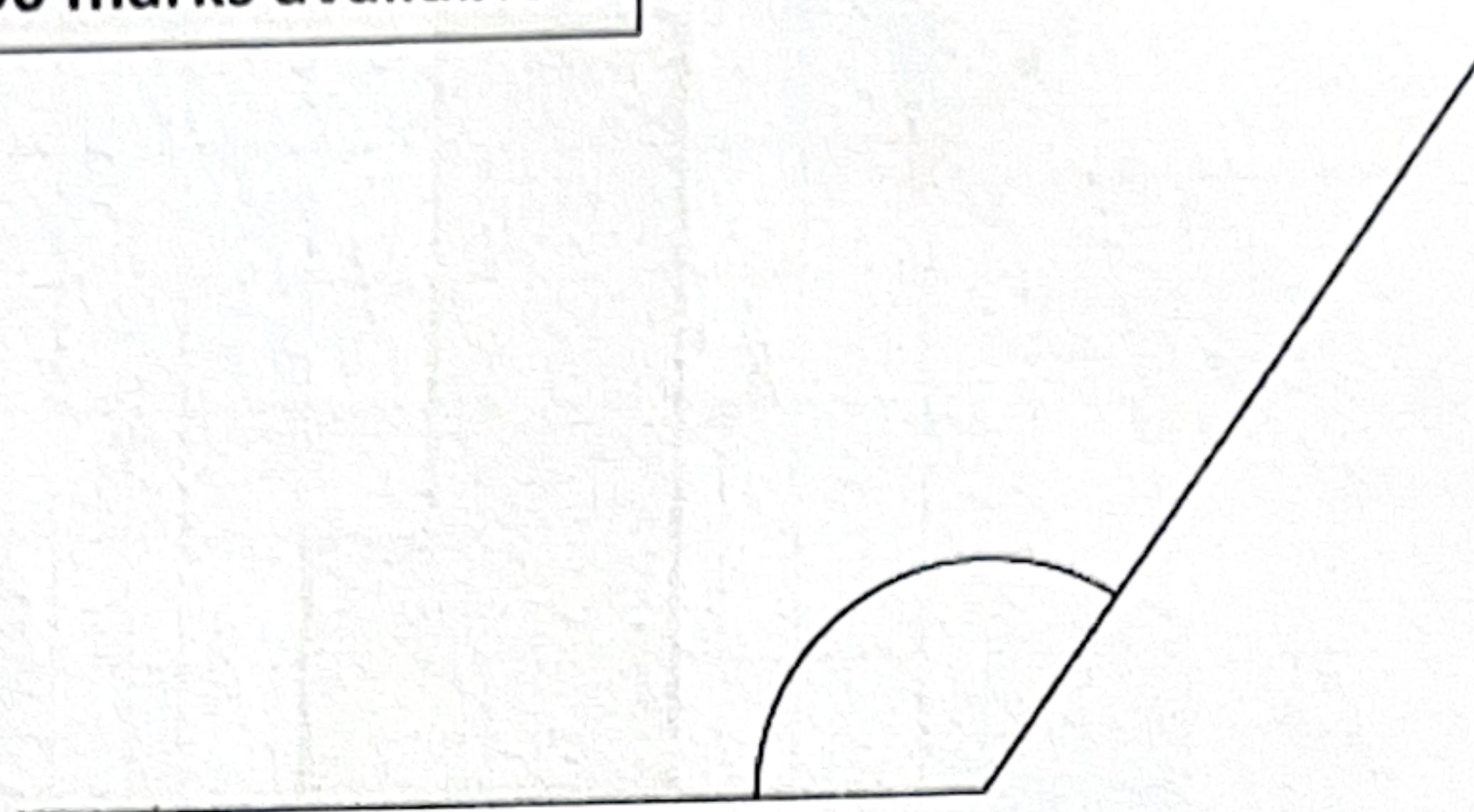
Town R is 55 km from town T on a bearing of 065°

Mark the position of town R with a cross (x).

Use a scale of 1 cm to 10 km.

(Total for question = 2 marks)

Q1. Here is an angle



(i) What type of angle is it?

.....obtuse.....

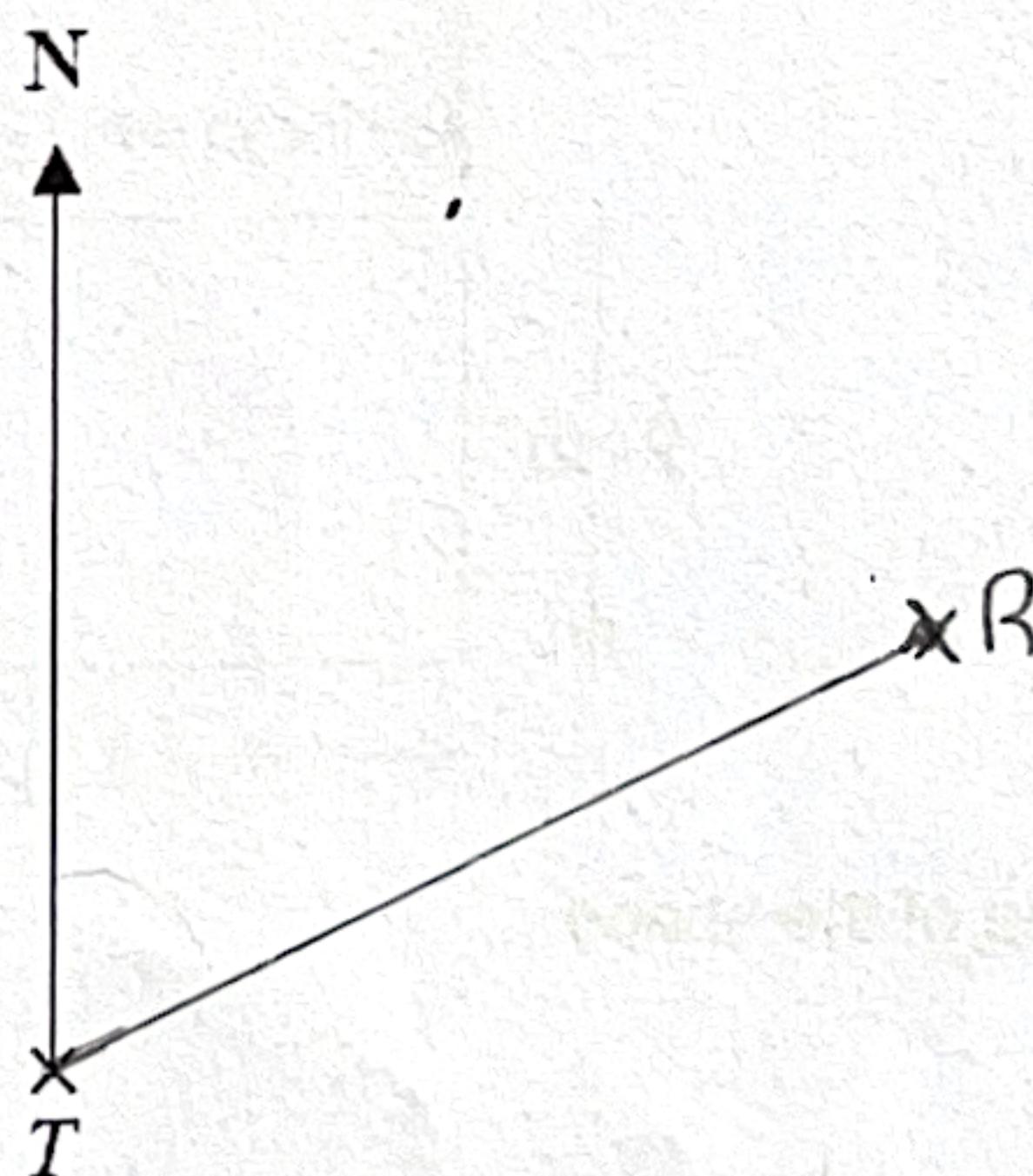
(ii) Measure the size of the angle.

125°

(Total for question = 2 marks)

Q2.

The diagram shows the position of town  $T$ .



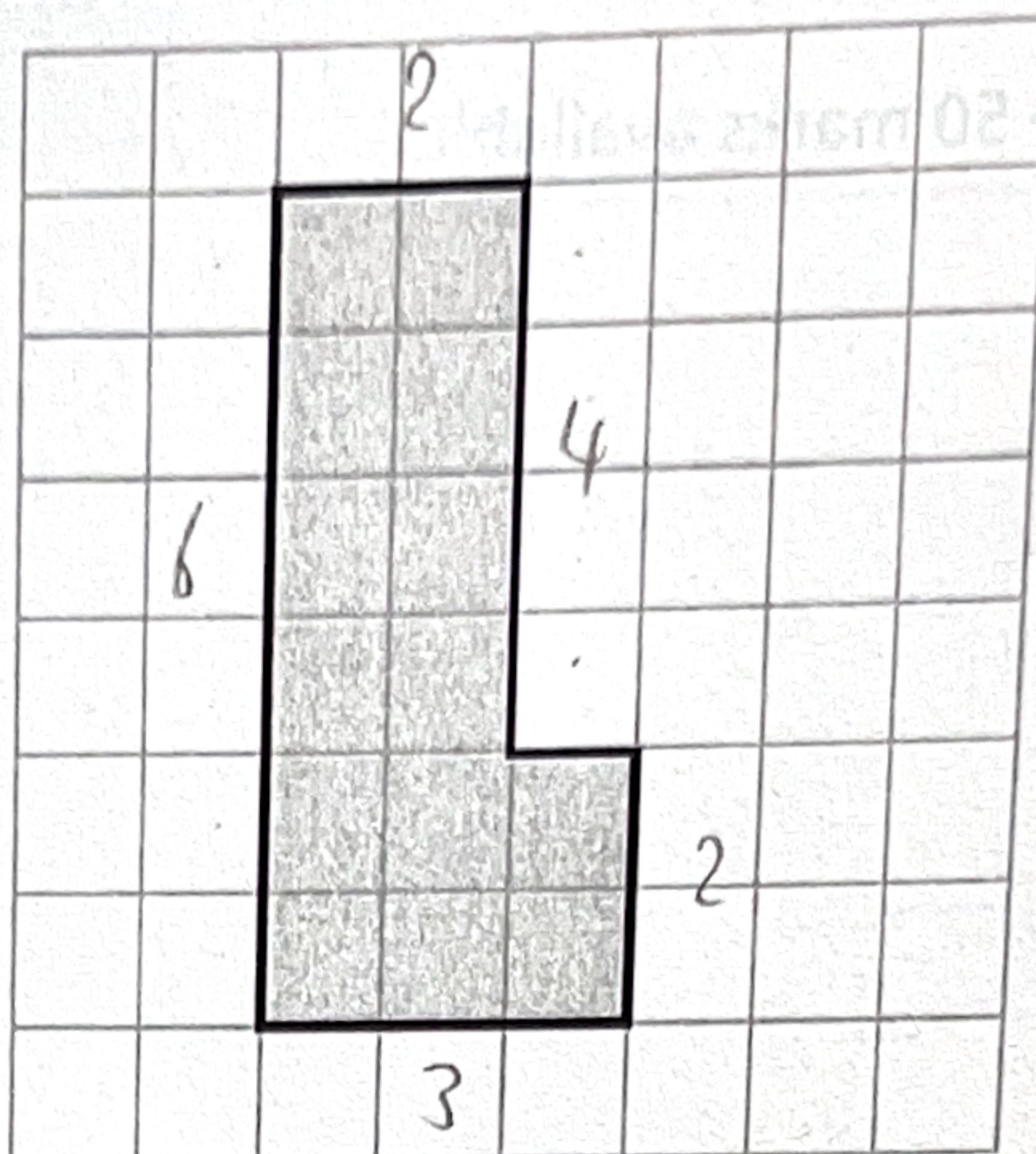
Town  $R$  is 55 km from town  $T$  on a bearing of  $065^\circ$

Mark the position of town  $R$  with a cross (x).

Use a scale of 1 cm to 10 km.

(Total for question = 2 marks)

**Q3.** The diagram shows a shape on a centimetre grid.



$$\begin{array}{r} 1 \\ 16 \times 4 = 64 \\ 16 \times 6 = 96 \\ \hline 160 \end{array}$$

$$4 \times 7 \times 2 \times 3 \times 6 =$$

(a) Find the area of the shape.

$$280 \text{ cm}^2$$

(1)

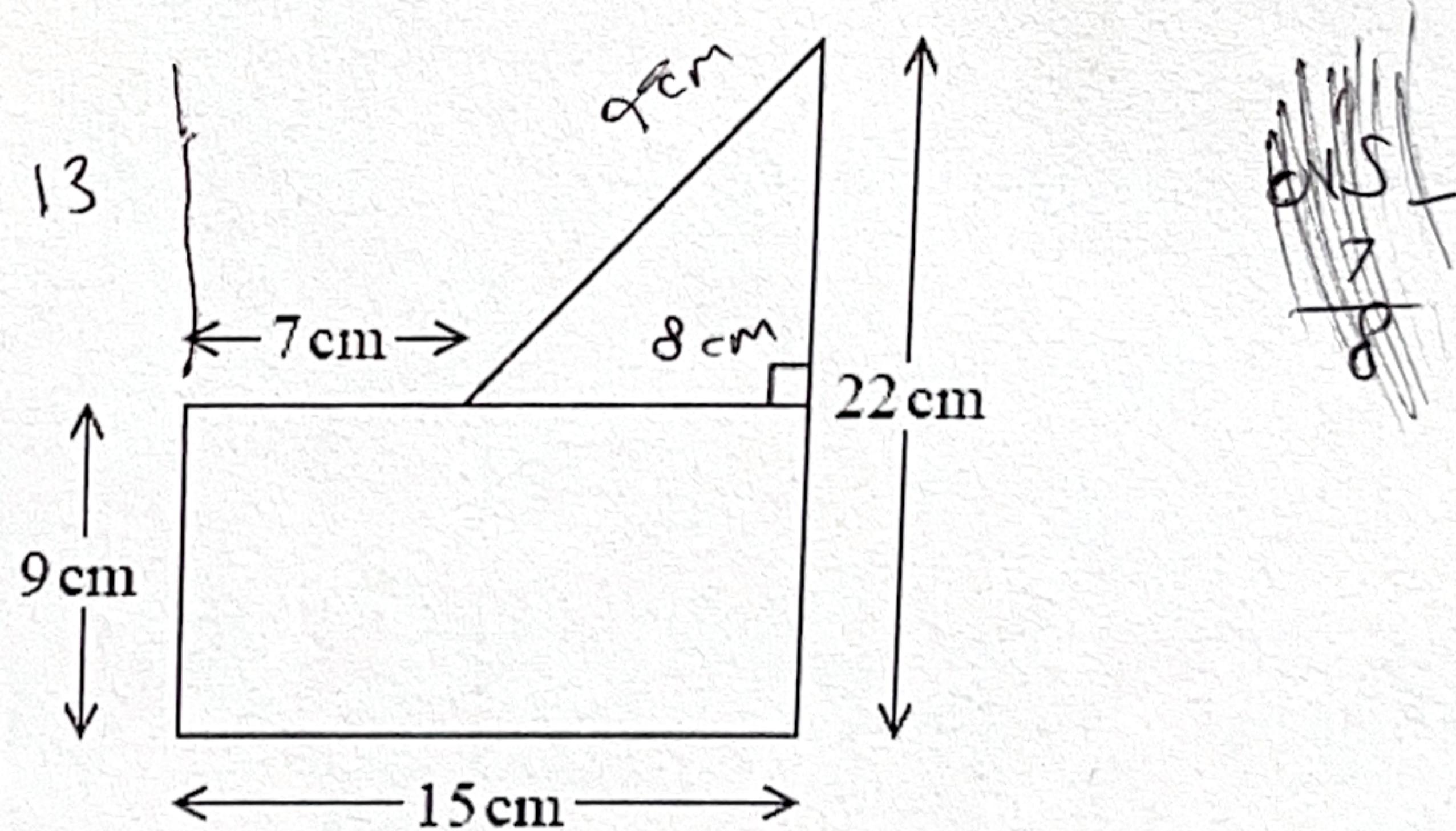
(b) Find the perimeter of the shape.

$$17 \text{ cm}$$

(1)

**(Total for question = 2 marks)**

**Q4.** Here is a shape made from a rectangle and a triangle.



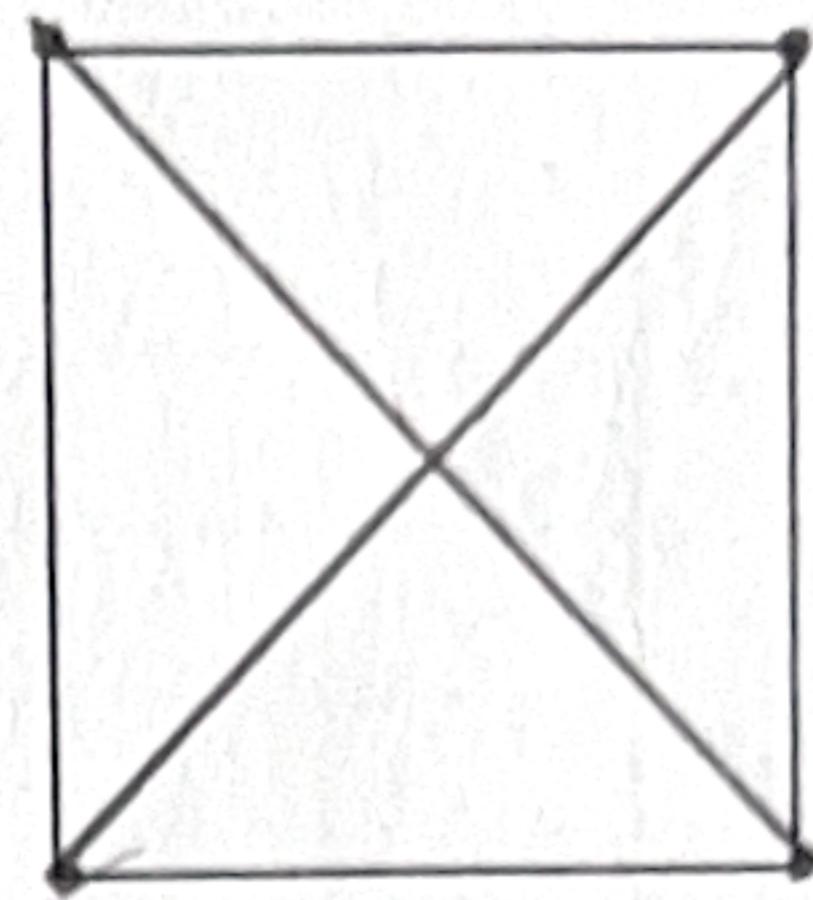
Work out the total area of the shape.

$$20790 \text{ cm}^2$$

**(Total for question = 3 marks)**

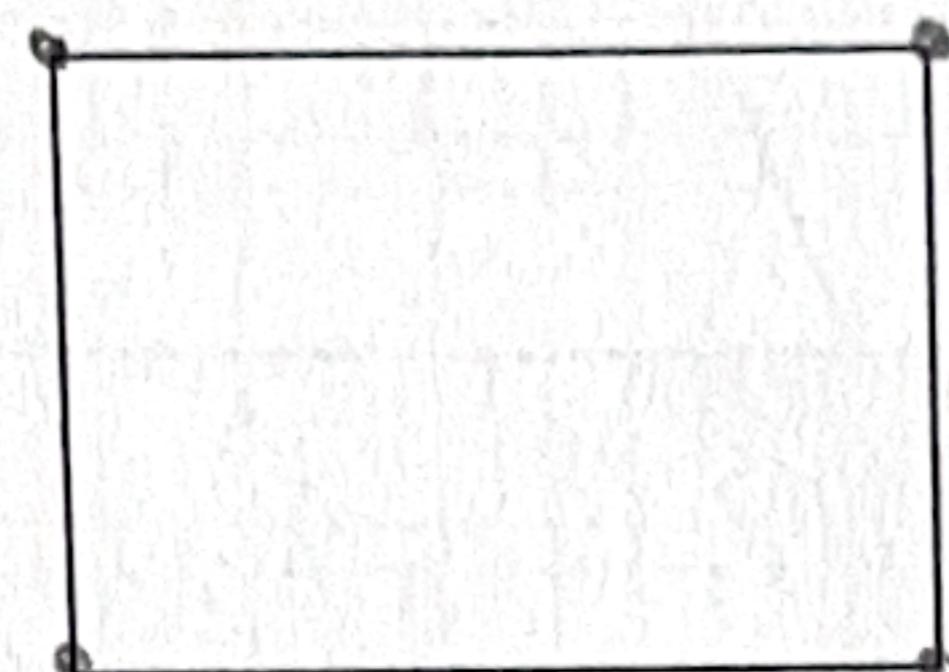
Q5. Here is a square.

a) On the square, draw all the lines of symmetry.



(2)

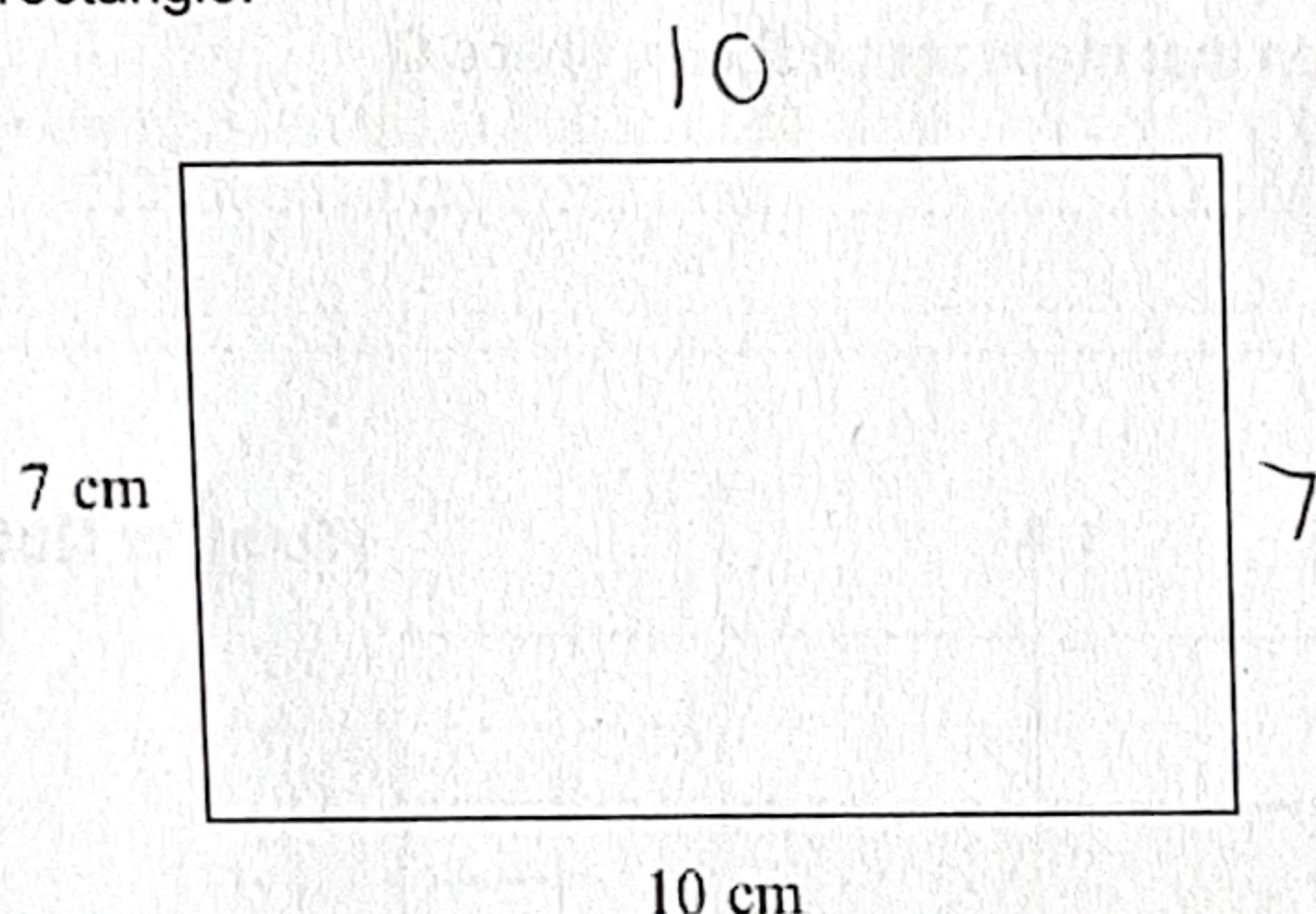
Here is a rectangle.



b) Write down the order of rotational symmetry of the rectangle.

.....  
(1)

Here is a different rectangle.

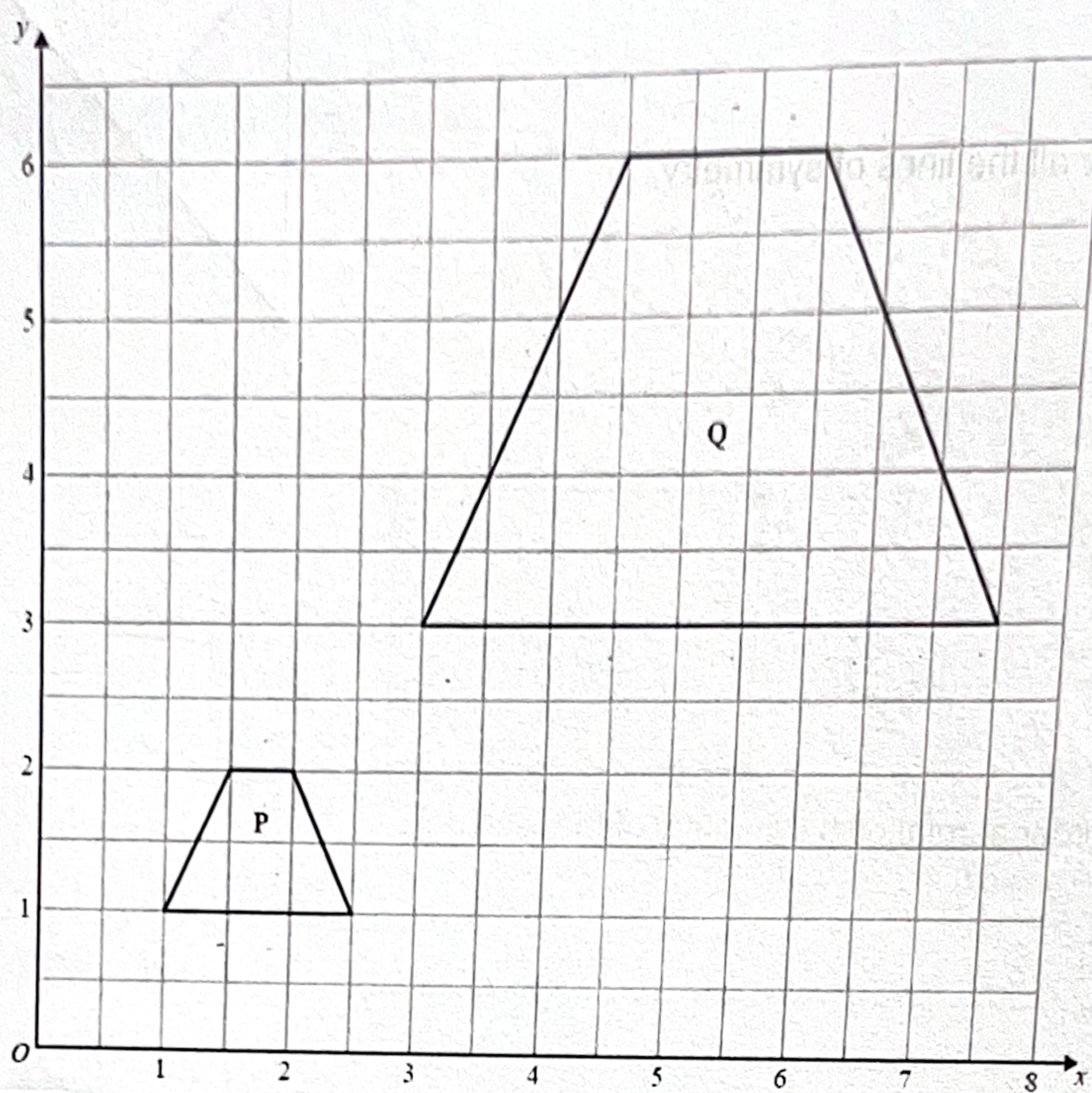


c) Work out the area of this rectangle.

.....  
4900 .....  $\text{cm}^2$   
(2)

(Total for Question = 5 marks)

Q6.

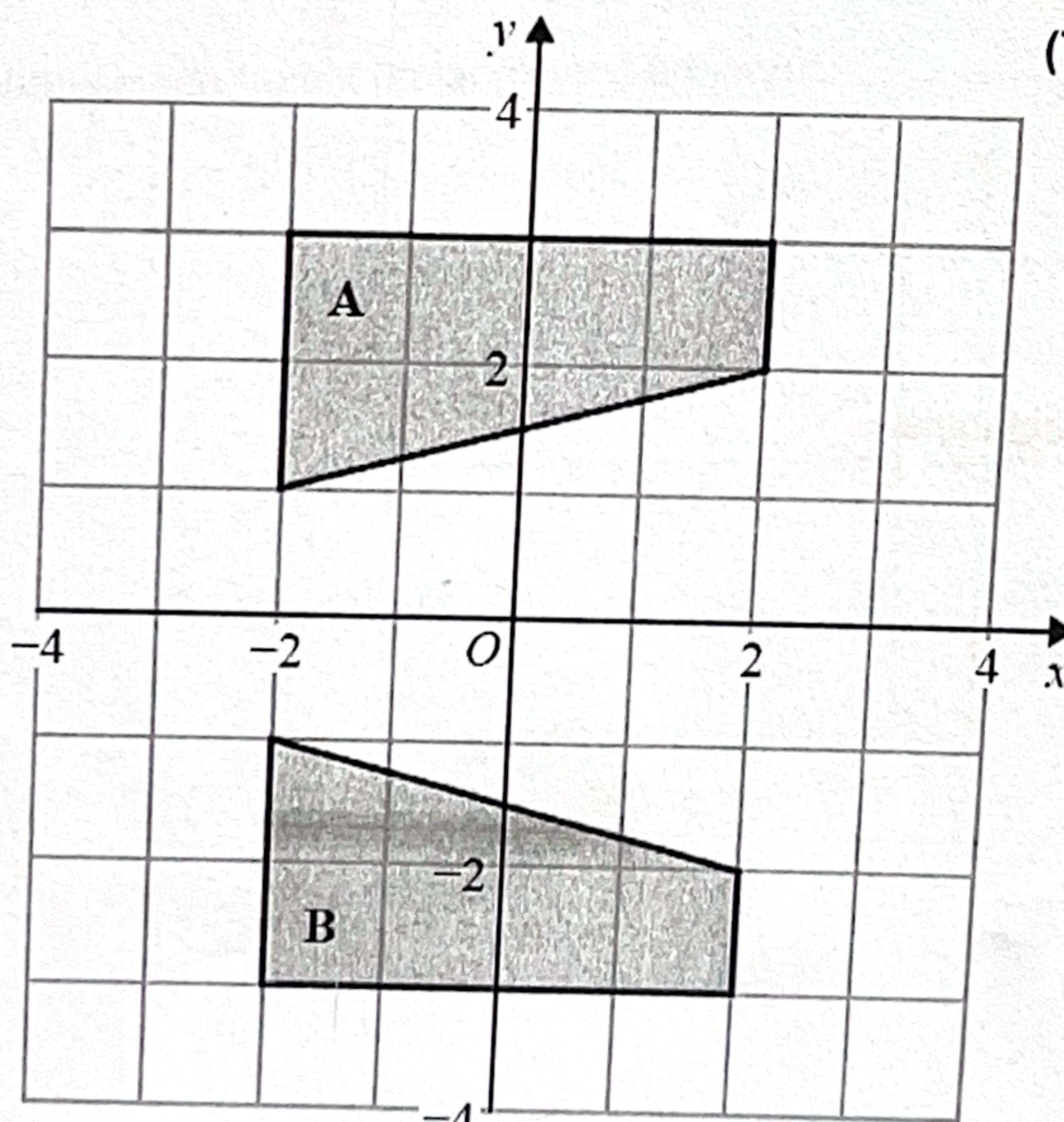


Describe fully the single transformation that maps shape P onto shape Q.

Enlargement SF = 3

Q7.

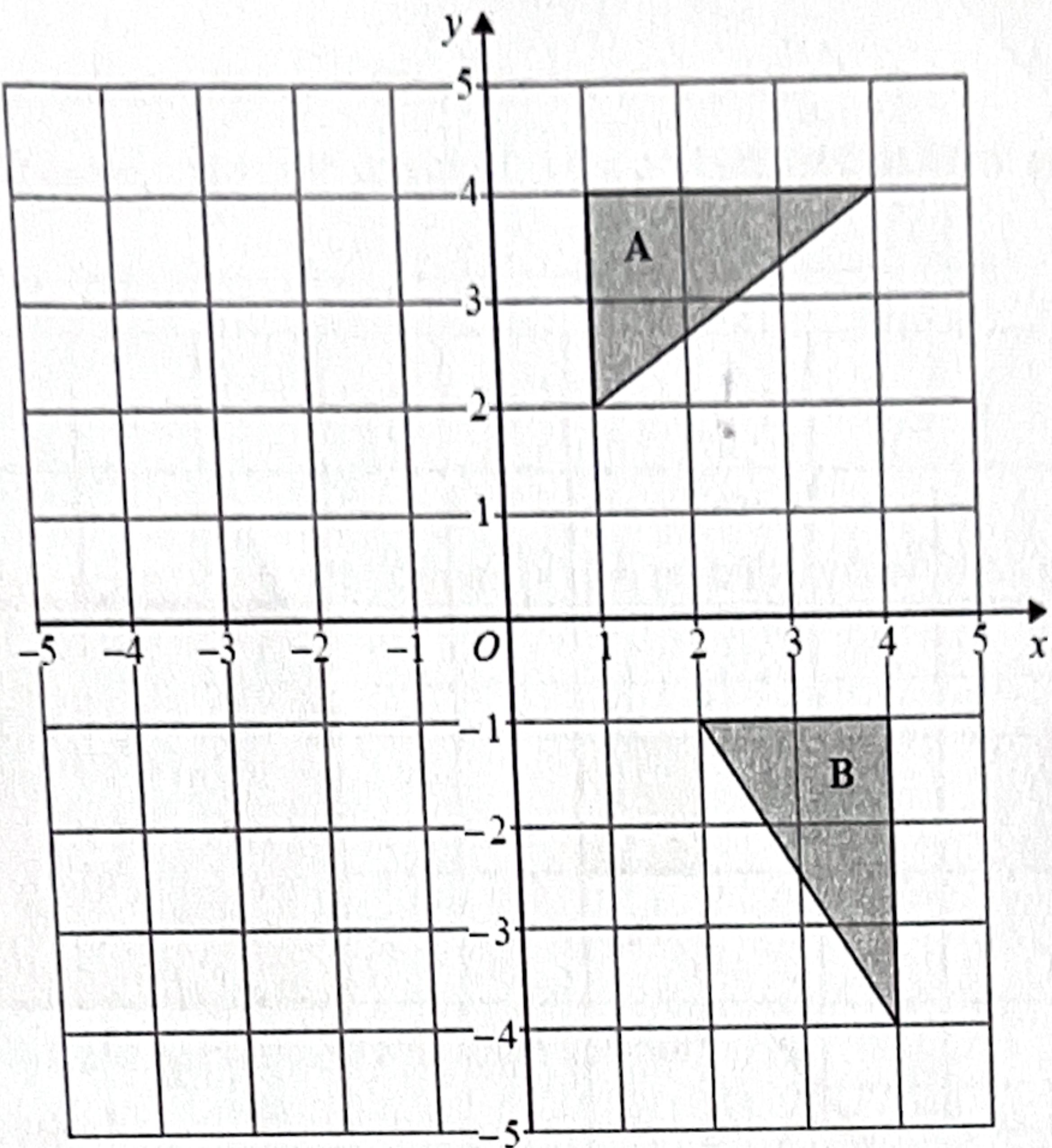
(Total for Question = 3 marks)



Describe fully the single transformation that maps shape A onto shape B.

Reflection in x = -2

(Total for question = 2 marks)



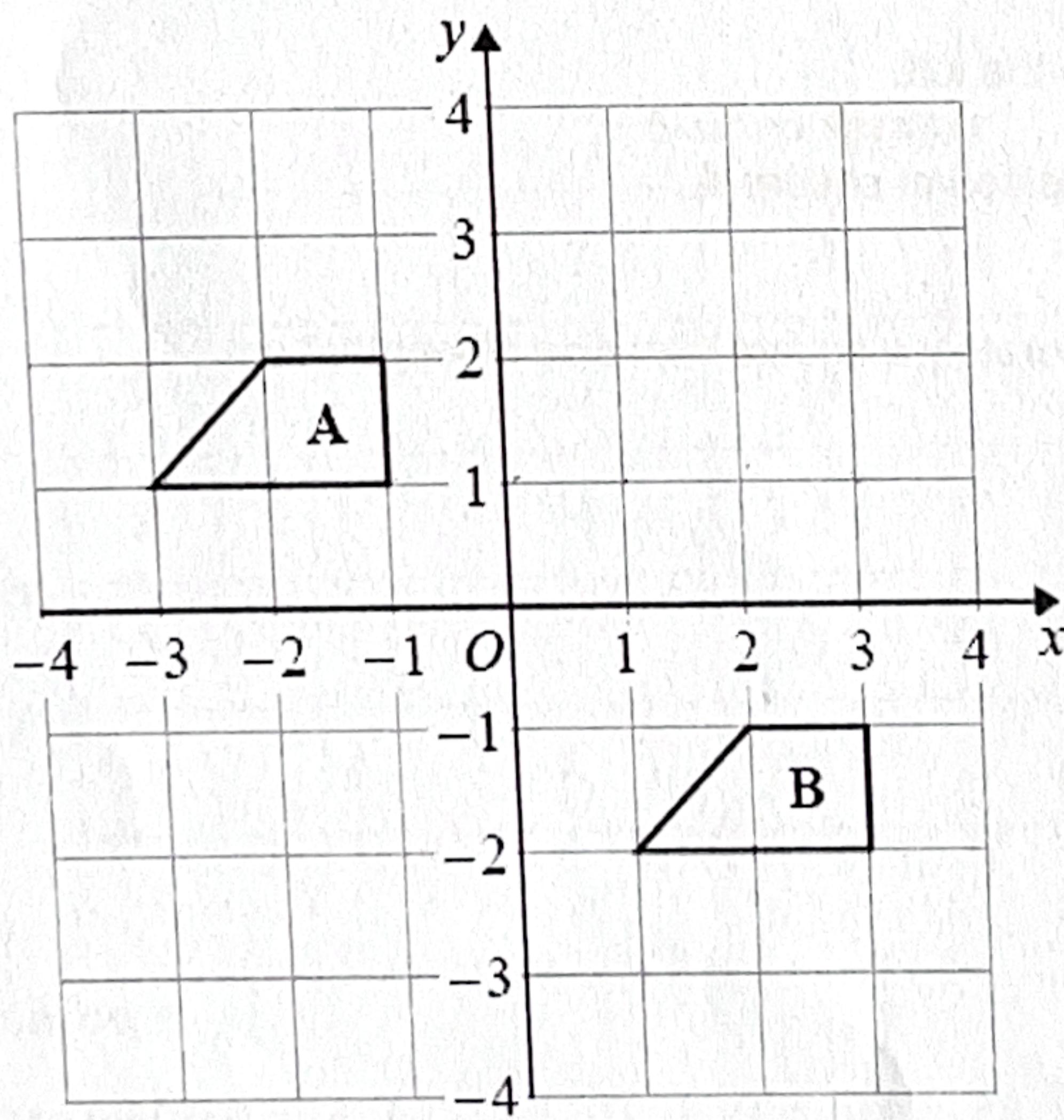
Describe fully the single transformation that maps triangle A onto triangle B.

~~Translation~~  $\leftarrow 90^\circ \text{ (cw)} (0, 0)$

Translocation

Q9.

(Total for question = 2 marks)



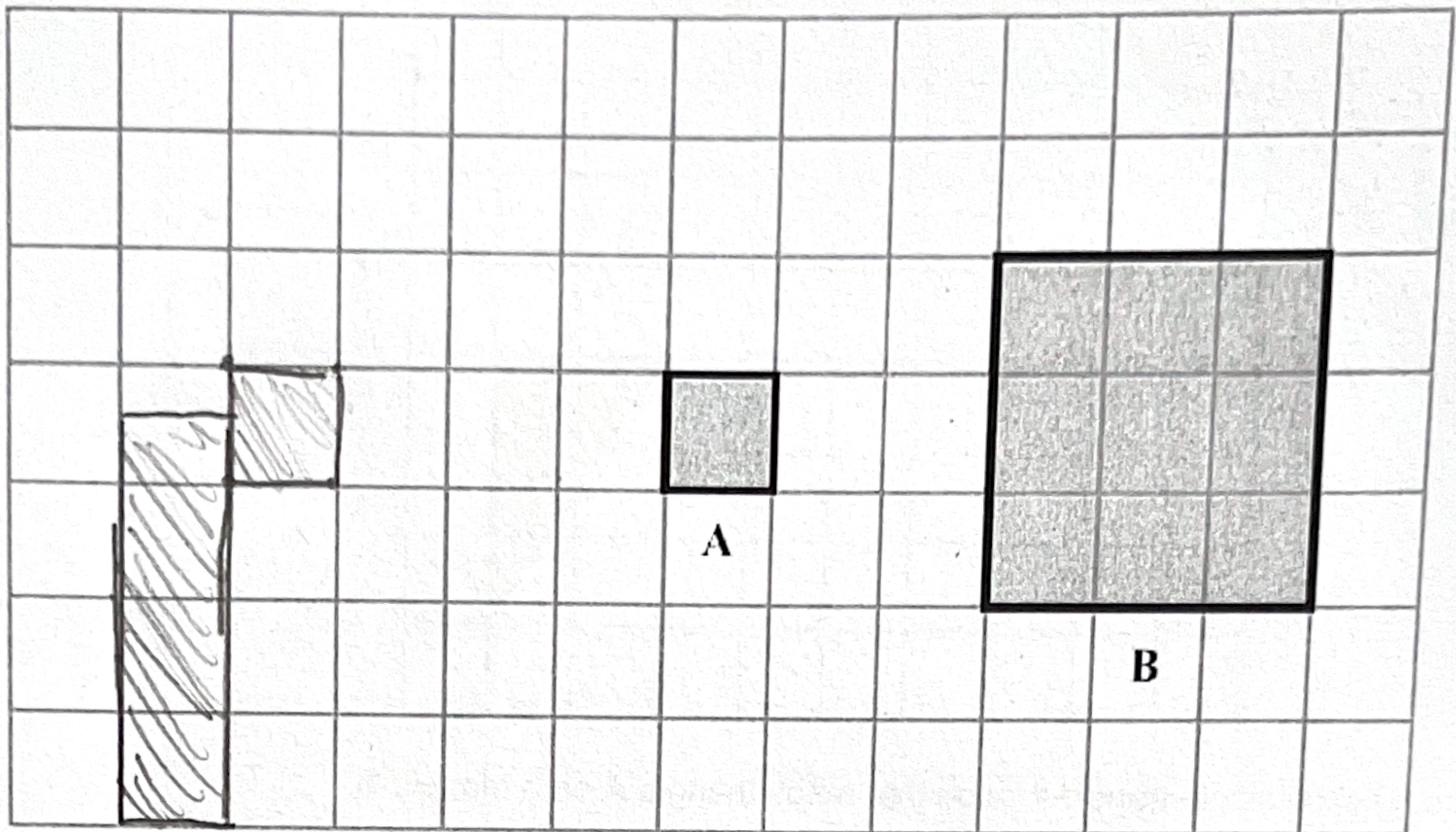
Describe the single transformation that maps shape A onto shape B.

~~Translation~~  $(\frac{4}{-3})$

(Total for question = 2 marks)

**Q10.**

Here are two squares.



Square **B** is an enlargement of square **A**.

- (a) What is the scale factor of the enlargement?

.....  
**3**

(1)

Square **A** is moved 4 squares to the left.

- (b) On the grid, draw the new position of square **A**.

(1)

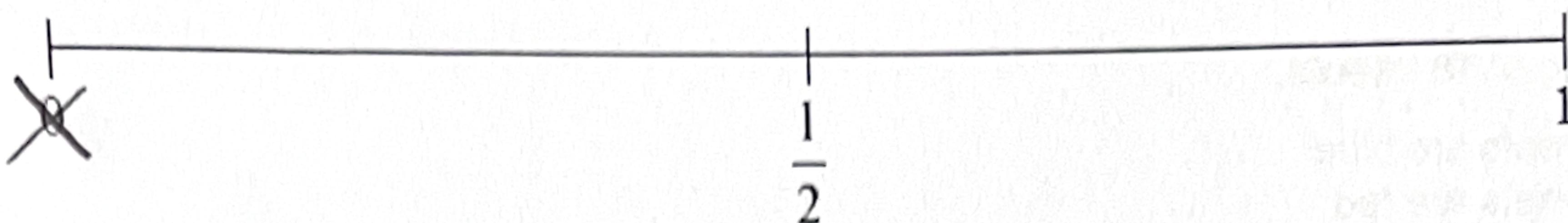
- (c) In the space below, draw accurately a square with side of length 4 cm.

(2)

**(Total for Question = 4 marks)**

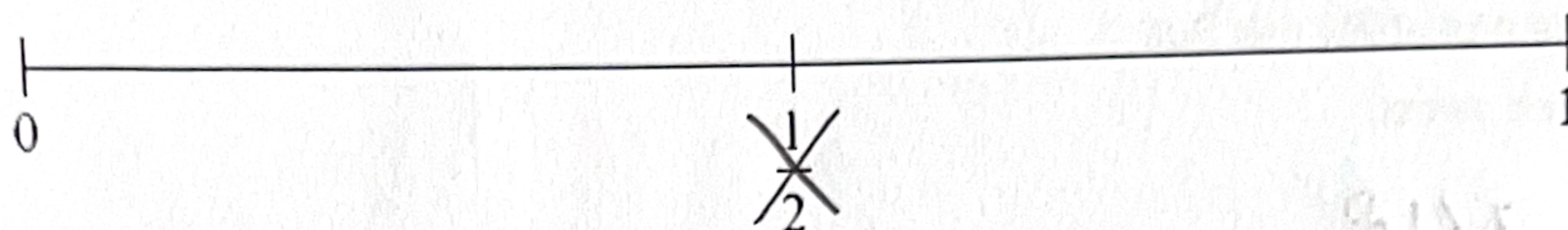
11. Shari has a fair ordinary dice. She rolls the dice once.

(a) On the probability scale, mark with a cross ( $\times$ ) the probability that Shari gets the number 7



(1)

(b) On the probability scale, mark with a cross ( $\times$ ) the probability that Shari gets an even number.

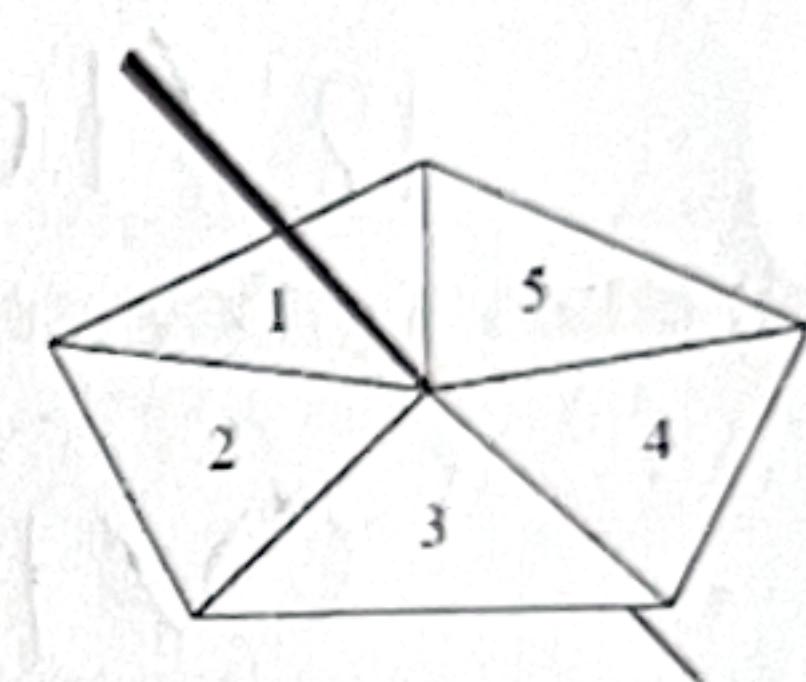
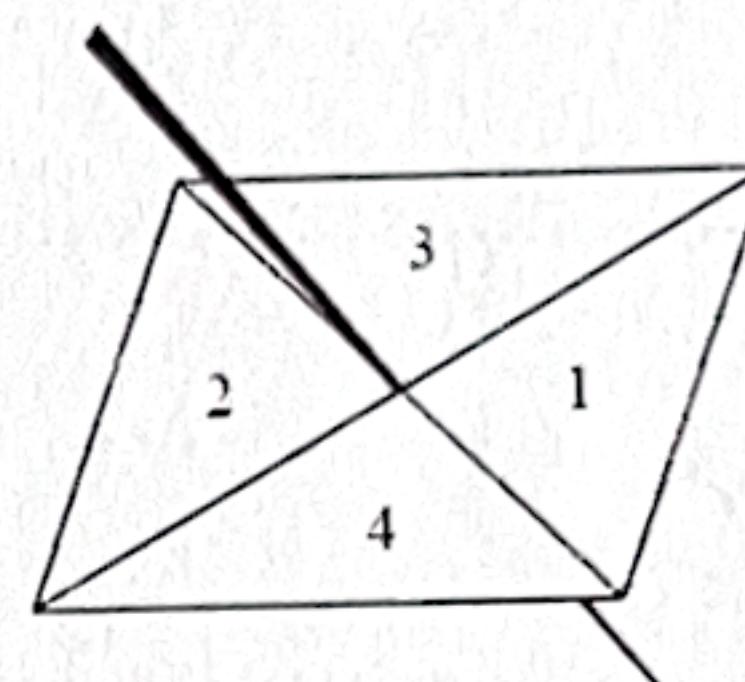


(1)

(Total for question = 2 marks)

Q12. Here are a 4-sided spinner and a 5-sided spinner.

The spinners are fair.



Jeff is going to spin each spinner once.

Each spinner will land on a number.

Jeff will get his score by adding these two numbers together.

(a) Complete the possibility space diagram for each possible score.

5-sided spinner

4-sided spinner

|   | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | 4 | 5 | 6 | 7 | 8 |
| 4 | 5 | 6 | 7 | 8 | 9 |

(1)

Jeff spins each spinner once.

(b) Find the probability that Jeff gets

(i) a score of 3

$$2/20 = 1/10$$

(ii) a score of 5 or more.

$$14/20 = 7/10$$

(2)

(Total for question = 3 marks)

**Q13.**

Sue has a bag of 18 sweets.

5 of the sweets are blue  
7 of the sweets are red  
6 of the sweets are green

Sue takes at random a sweet from the bag.

Write down the probability that Sue

(i) takes a red sweet,

7/18

(ii) does **not** take a green sweet,

12/18

(iii) takes a yellow sweet.

0/18

**(Total for Question = 3 marks)**

**Q14.** Write 478 to the nearest hundred.

500

**(Total for question = 1 mark)**

**Q15.** (a) Write 2530 correct to 2 significant figures.

2500

(1)

(b) Write 0.0874 correct to 1 significant figure.

0.09

(1)

**(Total for question = 2 marks)**

correct to 3 significant figures.

(b) Work out  $\frac{\sqrt{17 + 4^2}}{7.3^2}$

7360

(1)

Write down all the figures on your calculator display.

0.1077981356

(2)

(Total for question = 3 marks)

**Q17.** Emily drives 186 miles in 3 hours.

(a) What is her average speed?

62

mph

Sarah drives at an average speed of 58 mph for 4 hours.

(b) How many miles does Sarah drive?

232

miles

(2)

(Total for question = 4 marks)

**Q18.** Change 53 centimetres to millimetres.

530..... millimetres

(Total for question = 1 mark)

**Q19.** Polly has a full 5 kg sack of rice.

She pours the rice from this sack into bags.  
She fills as many bags as possible.

Each full bag contains 350 g of rice.

(a) How many bags did Polly fill from this sack of rice?

$$\begin{array}{r} \text{kg} \\ \times 350 + 100 = 350 \\ \hline \div 3.5 = 1.428571429 \end{array}$$

Polly assumes that the rice from two sacks will fill twice as many bags as the rice from one sack.

(b) Is Polly correct?

You must give a reason for your answer.

yes. if two sacks will multiply the bags  
it fills

(1)

(Total for question = 4 marks)