

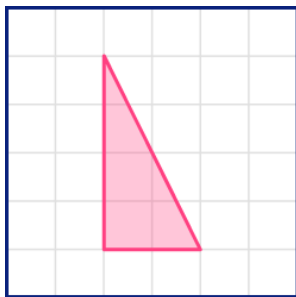
Scale Factor - Worksheet

Skill

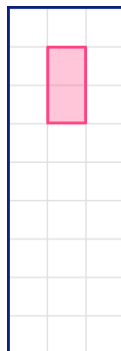
Group A - Enlargements with integer scale factor

On a separate page of squared paper, enlarge the shapes below by the given scale factor:

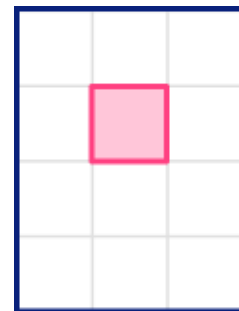
- 1) Enlarge by a scale factor of 2.



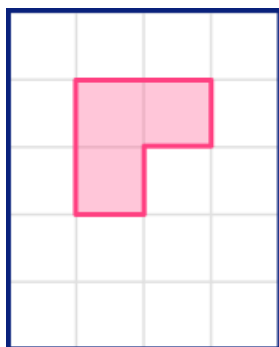
- 2) Enlarge by a scale factor of 3.



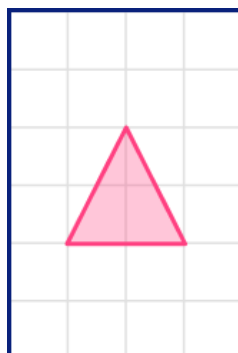
- 3) Enlarge by a scale factor of 5.



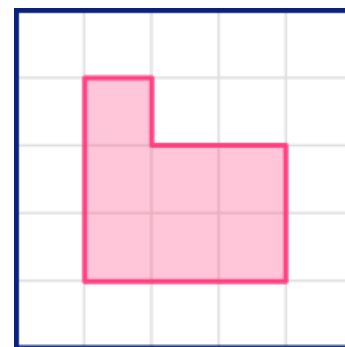
- 4) Enlarge by a scale factor of 2.



- 5) Enlarge by a scale factor of 3.



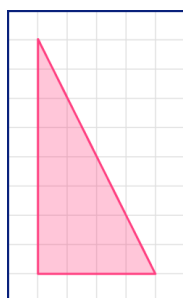
- 6) Enlarge by a scale factor of 2.



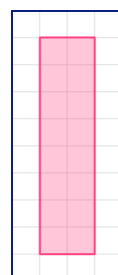
Group B - Enlargements with fractional scale factor

On a separate page of squared paper, enlarge the shapes below by the given scale factor:

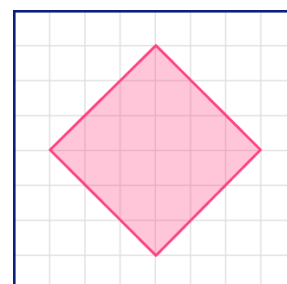
- 1) Enlarge by a scale factor of $\frac{1}{4}$.



- 2) Enlarge by a scale factor of $\frac{1}{2}$.

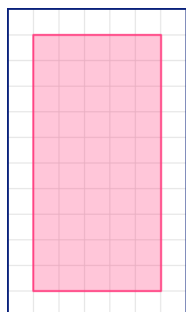


- 3) Enlarge by a scale factor of $\frac{1}{3}$.

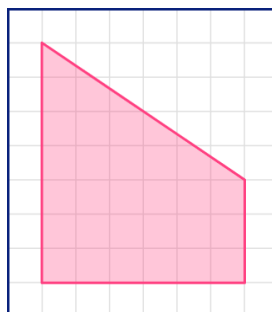


Scale Factor - Worksheet

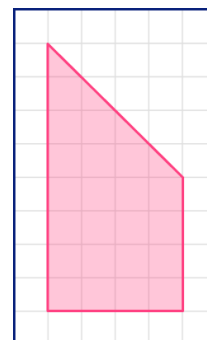
- 4) Enlarge by a scale factor of $\frac{1}{5}$.



- 5) Enlarge by a scale factor of $\frac{1}{2}$.

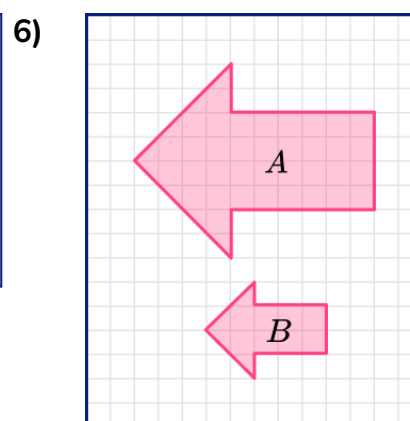
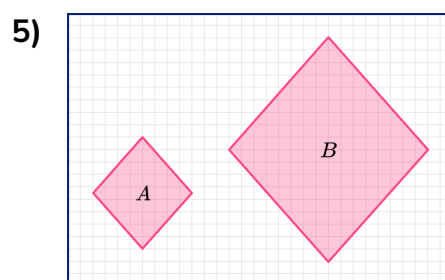
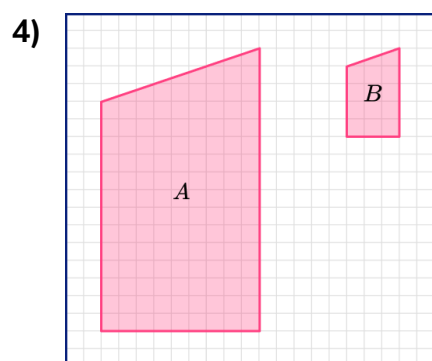
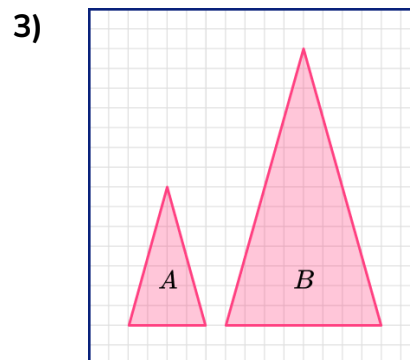
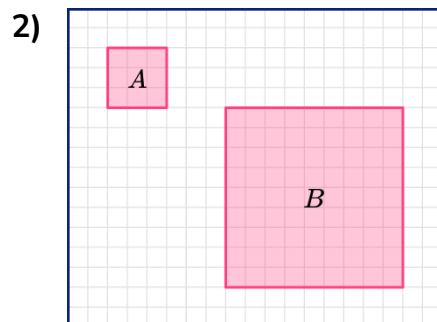
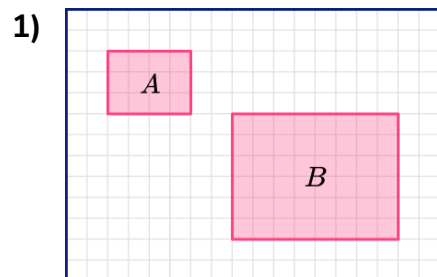


- 6) Enlarge by a scale factor of $\frac{1}{4}$.



Group C - Working out the scale factor

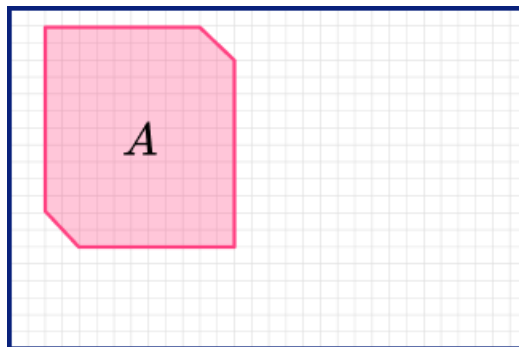
Work out the scale factor from *A* to *B* for each of the shapes below:



Scale Factor - Worksheet

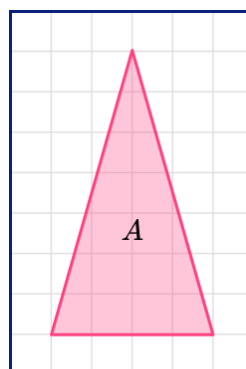
Applied

- 1) Below is shape A.



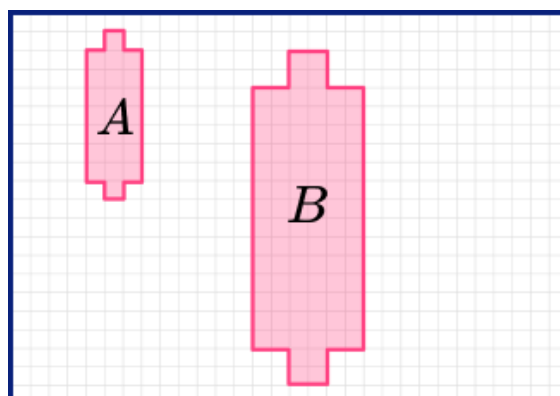
- (a) Enlarge the shape above by a scale factor of $\frac{1}{2}$. Label the new shape B.
(b) What is the area of the new shape?

- 2) Below is shape A.



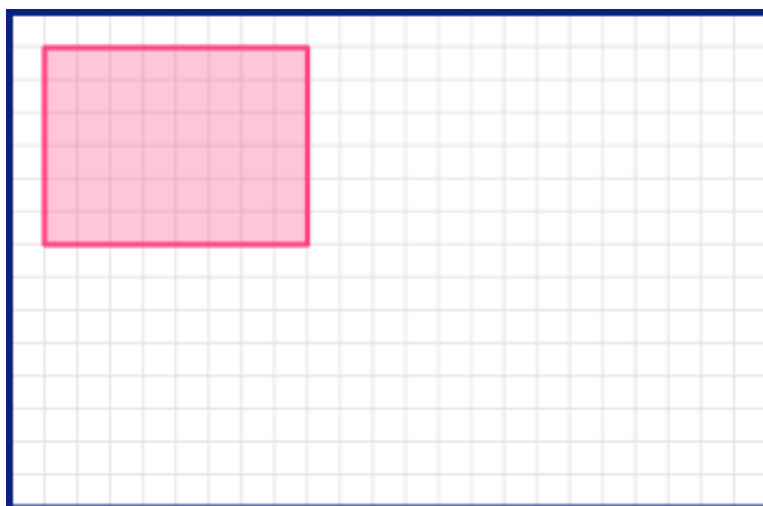
- (a) Enlarge the shape below by a scale factor of 2. Label the new shape B.
(b) What happens to the area of shape A when the shape is enlarged?

- 3) Work out the scale factor of enlargement of A to B, and B to A, below:



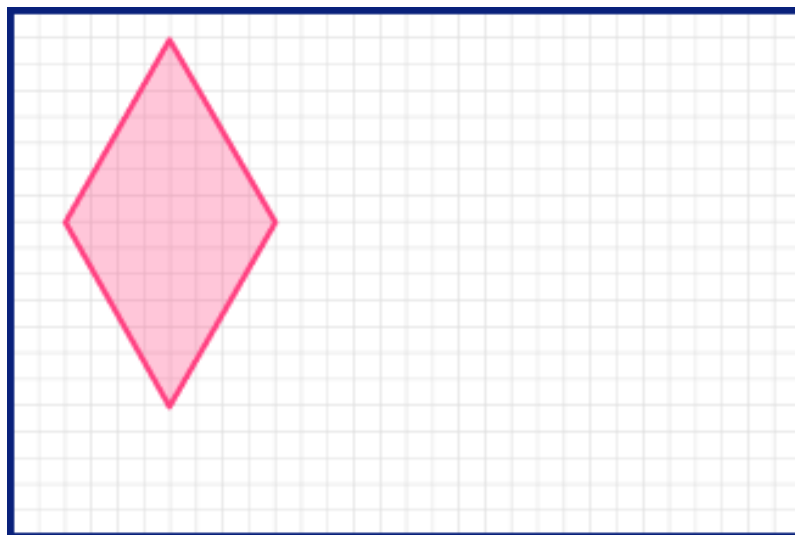
Scale Factor - Exam Questions

- 1) On the grid draw an enlargement of the shape with scale factor 2.
Label the enlarged shape B.



(2)
(2 marks)

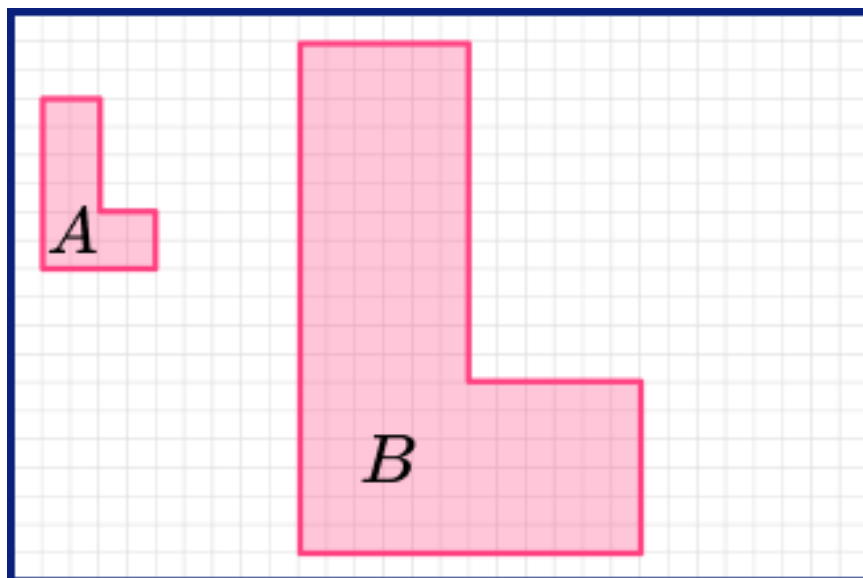
- 2) On the grid draw an enlargement of the shape with scale factor $\frac{1}{2}$. Label the enlarged shape B.



(2)
(2 marks)

Scale Factor - Exam Questions

- 3) (a) Work out the scale factor of enlargement for B to A .

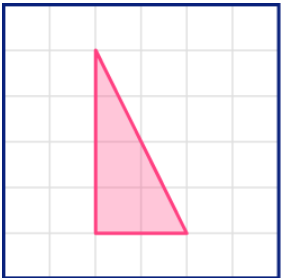
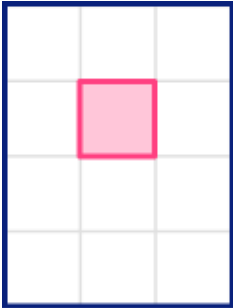
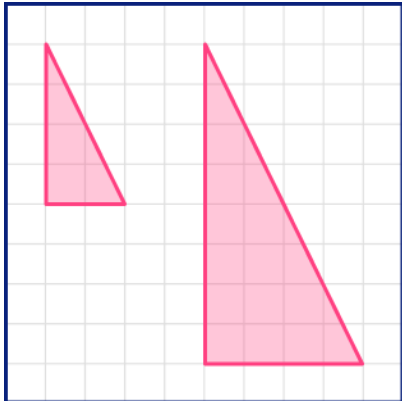
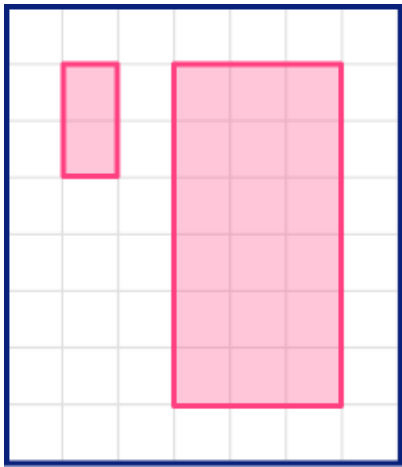
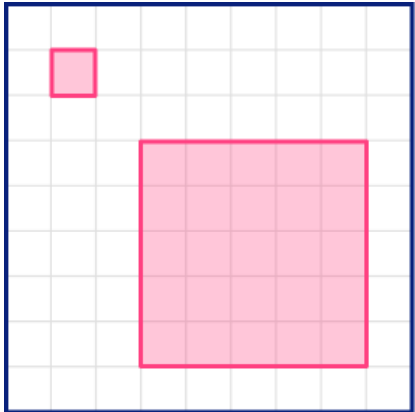


.....
(1)

- (b) What happens to the area of shape A when the shape is enlarged to B ?

.....
(2)
(3 marks)

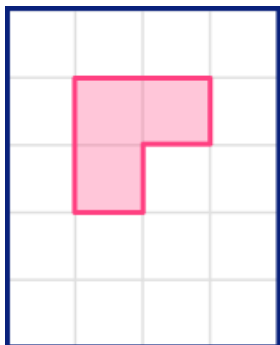
Scale Factor - Answers

	Question	Answer
	Skill Questions	
Group A	On a separate page of squared paper, enlarge the shapes below by the given scale factor: 1) Enlarge by a scale factor of 2.  2) Enlarge by a scale factor of 3.  3) Enlarge by a scale factor of 5. 	1)  2)  3) 

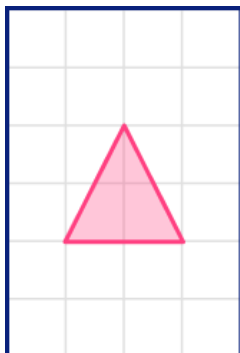
Scale Factor - Answers

Group A
contd

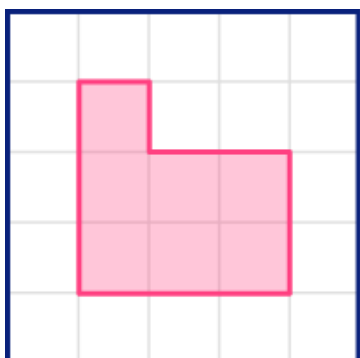
4) Enlarge by a scale factor of 2.



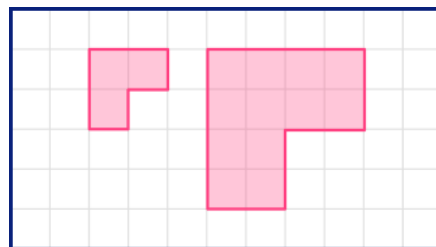
5) Enlarge by a scale factor of 3.



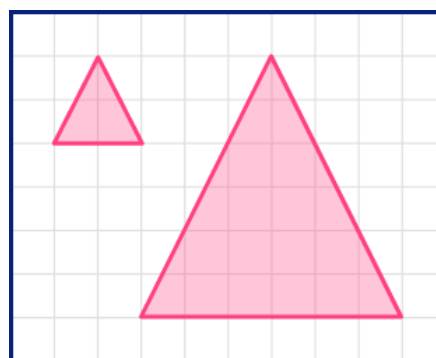
6) Enlarge by a scale factor of 2.



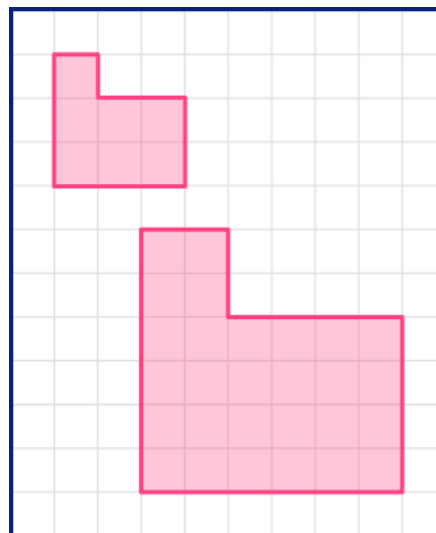
4)



5)



6)

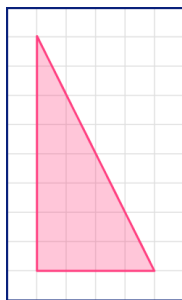


Scale Factor - Answers

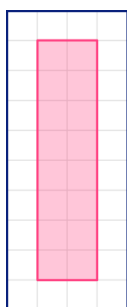
Group B

On a separate page of squared paper, enlarge the shapes below by the given scale factor:

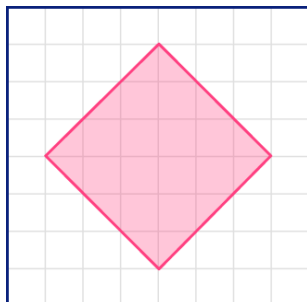
- 1)** Enlarge the shape below by a scale factor of $\frac{1}{4}$.



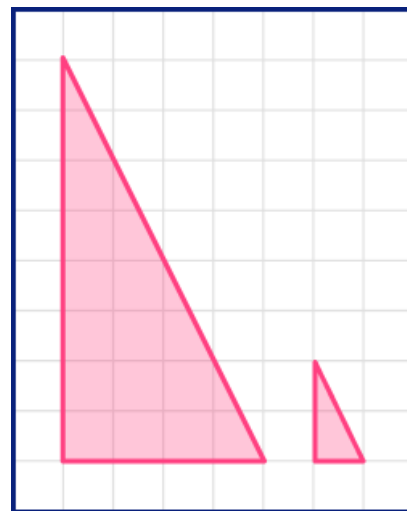
- 2)** Enlarge the shape below by a scale factor of $\frac{1}{2}$.



- 3)** Enlarge the shape below by a scale factor of $\frac{1}{3}$.



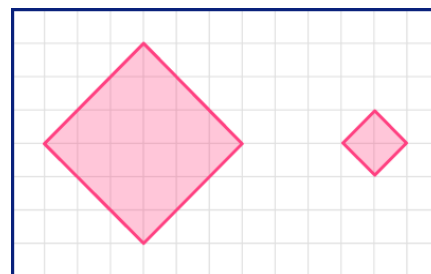
1)



2)



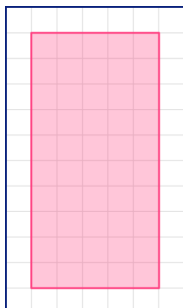
3)



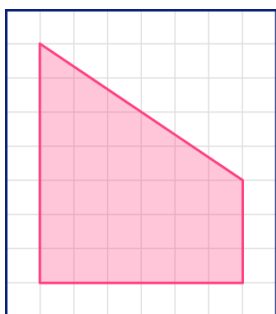
Scale Factor - Answers

Group B
contd

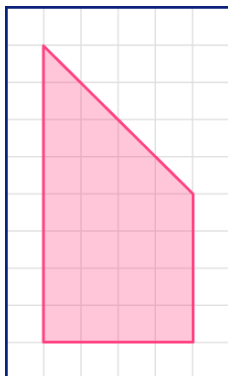
4) Enlarge the shape below by a scale factor of $\frac{1}{5}$.



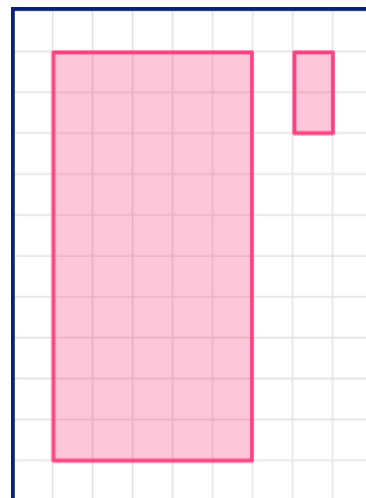
5) Enlarge the shape below by a scale factor of $\frac{1}{2}$.



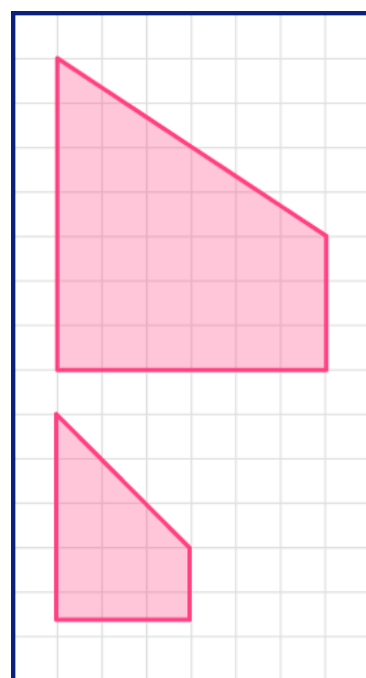
6) Enlarge the shape below by a scale factor of $\frac{1}{4}$.



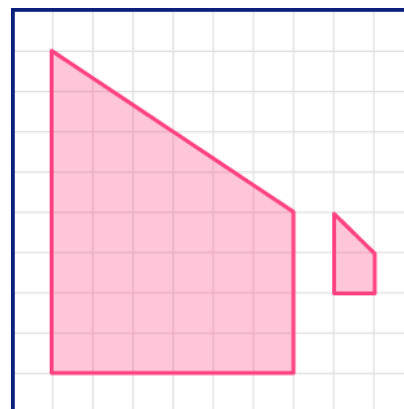
4)



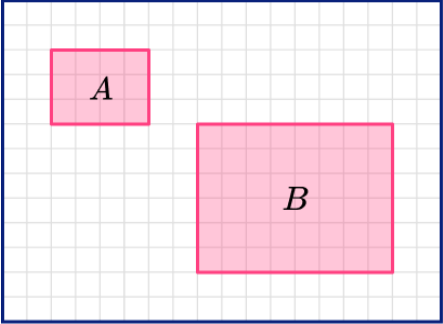
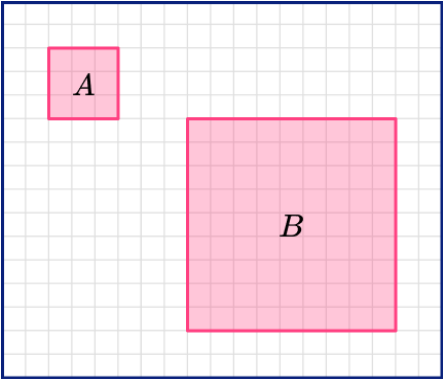
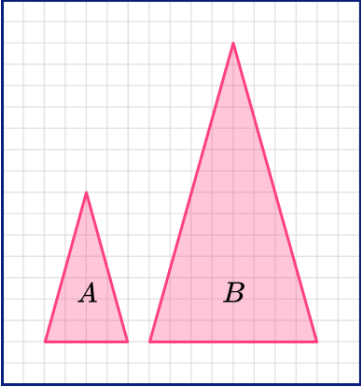
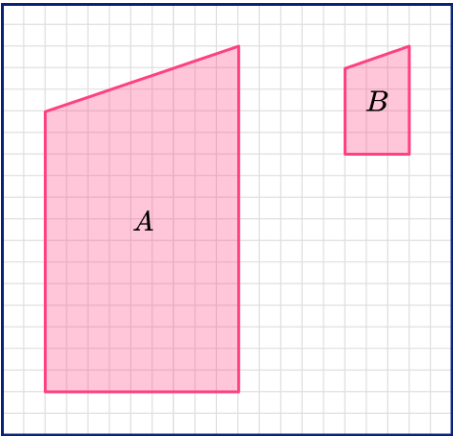
5)



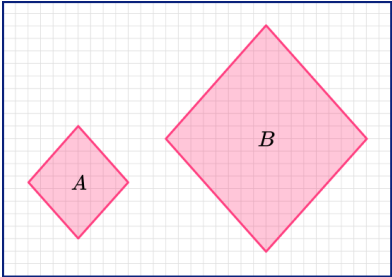
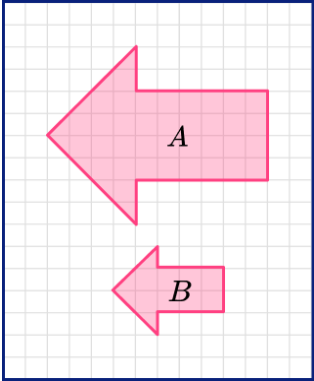
6)



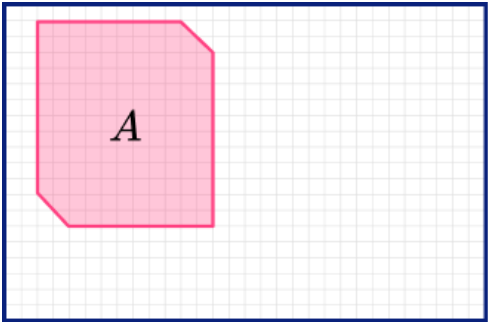
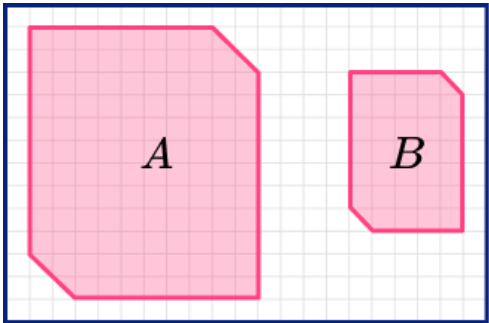
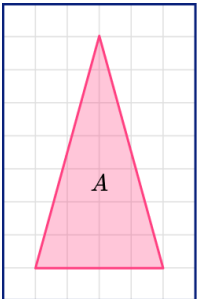
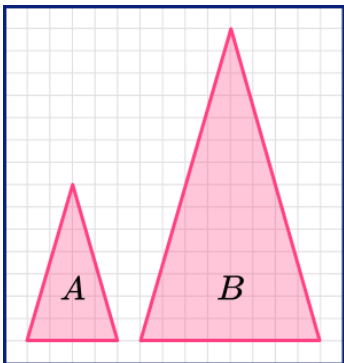
Scale Factor - Answers

Group C	Work out the scale factor from <i>A</i> to <i>B</i> for each of the shapes below: 1)  2)  3)  4) 	1) Scale factor of 2 2) Scale factor of 3 3) Scale factor of 2 4) Scale factor of $\frac{1}{3}$
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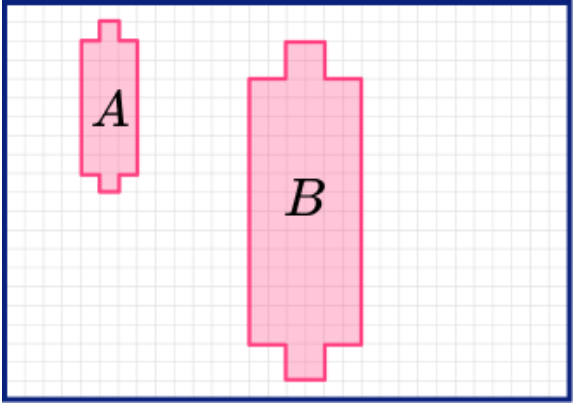
Scale Factor - Answers

Group C contd	5)  6) 	5) Scale factor of 2 6) Scale factor of $\frac{1}{2}$
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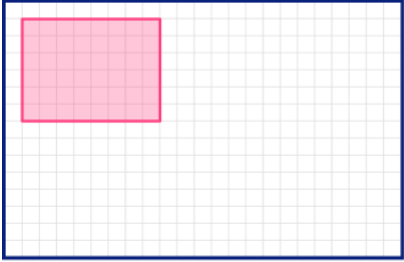
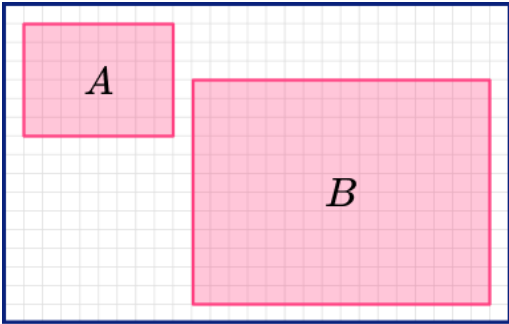
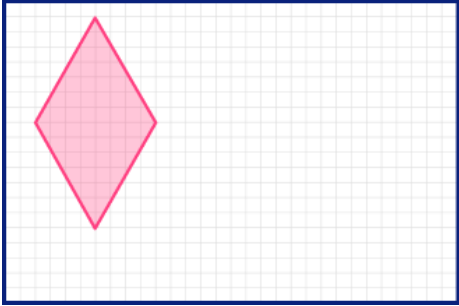
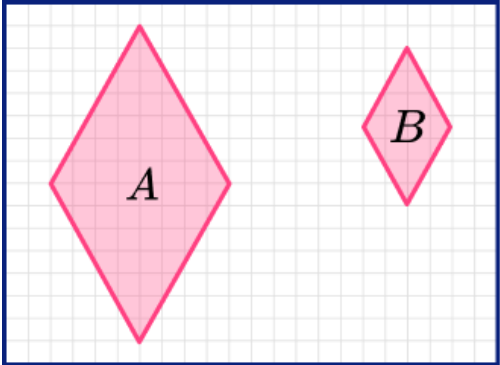
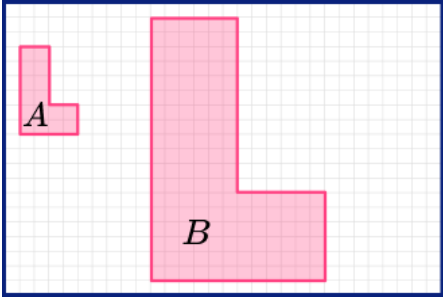
Scale Factor - Answers

	Question	Answer
	Applied Questions	
1)	Below is shape <i>A</i>.  a) Enlarge the shape above by a scale factor of $\frac{1}{2}$. Label the new shape <i>B</i>. b) What is the area of the new shape?	a)  b) 34 units^2
2)	Below is shape <i>A</i>.  a) Enlarge the shape below by a scale factor of 2. Label the new shape <i>B</i>.	a) 

Scale Factor - Answers

	b) What happens to the area of shape A when the shape is enlarged?	b) The area will be 4 times greater
3)	Work out the scale factor of enlargement of <i>A</i> to <i>B</i>, and <i>B</i> to <i>A</i>, below: 	<i>A</i> to <i>B</i>: Scale factor of 2 <i>B</i> to <i>A</i>: Scale factor of $\frac{1}{2}$

Scale Factor - Mark Scheme

	Question	Answer	
	Exam Questions		
1)	On the grid draw an enlargement of the shape with scale factor 2. Label the enlarged shape B. 	 Correct length of rectangle Correct width of rectangle	(1) (1)
2)	On the grid draw an enlargement of the shape with scale factor $\frac{1}{2}$. Label the enlarged shape B. 	 Correct length of parallelogram Correct width of parallelogram	(1) (1)
3) (a)	Work out the scale factor of enlargement for B to A. 	(a) Scale factor of $\frac{1}{3}$	(1)
(b)	What happens to the area of shape A when the shape is enlarged to B?	(b) 3^2 The area will be 9 times larger	(1) (1)

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