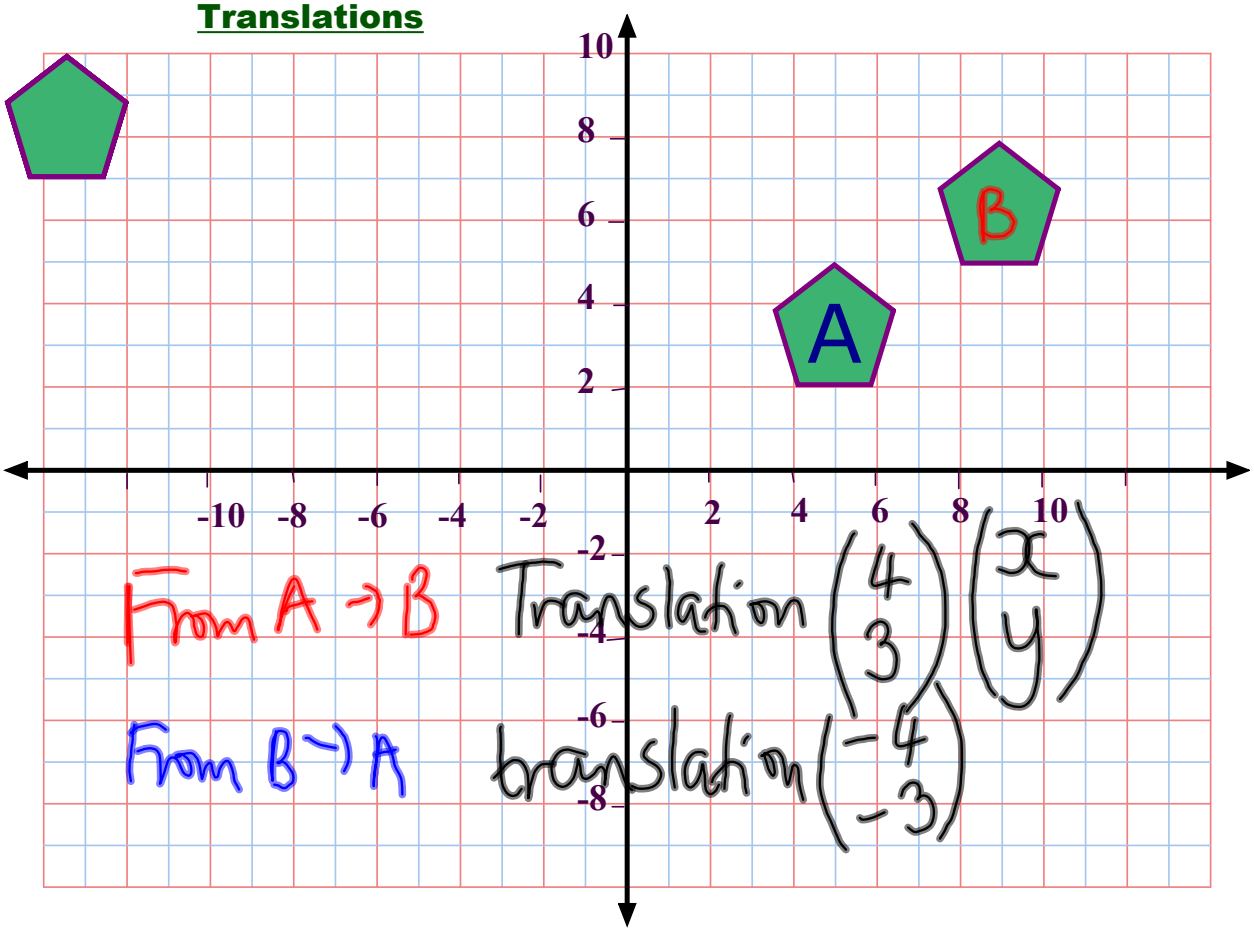
Translations



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Mirror, Mirror on the wall...

Task 1

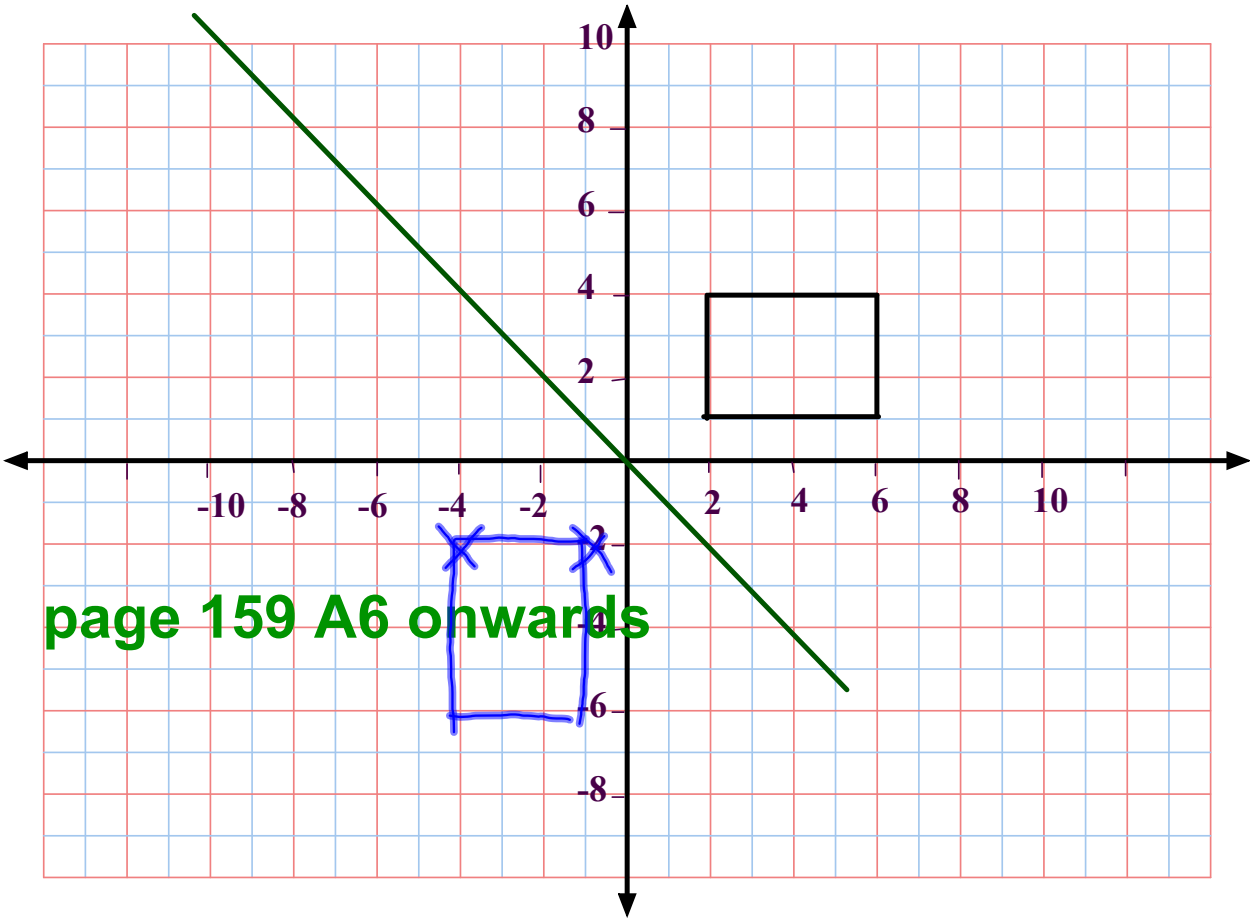
Draw a pair of axes with all four quadrants.

Draw a rectangle:
3 of the co-ordinates are
A(2,1), B(2, 4), C (6,4).
Write down the co-ordinates of the 4th point D.

Plot the four points and join them.

Reflect the rectangle in the line y = -x

Write down the co-ordinates of A'.



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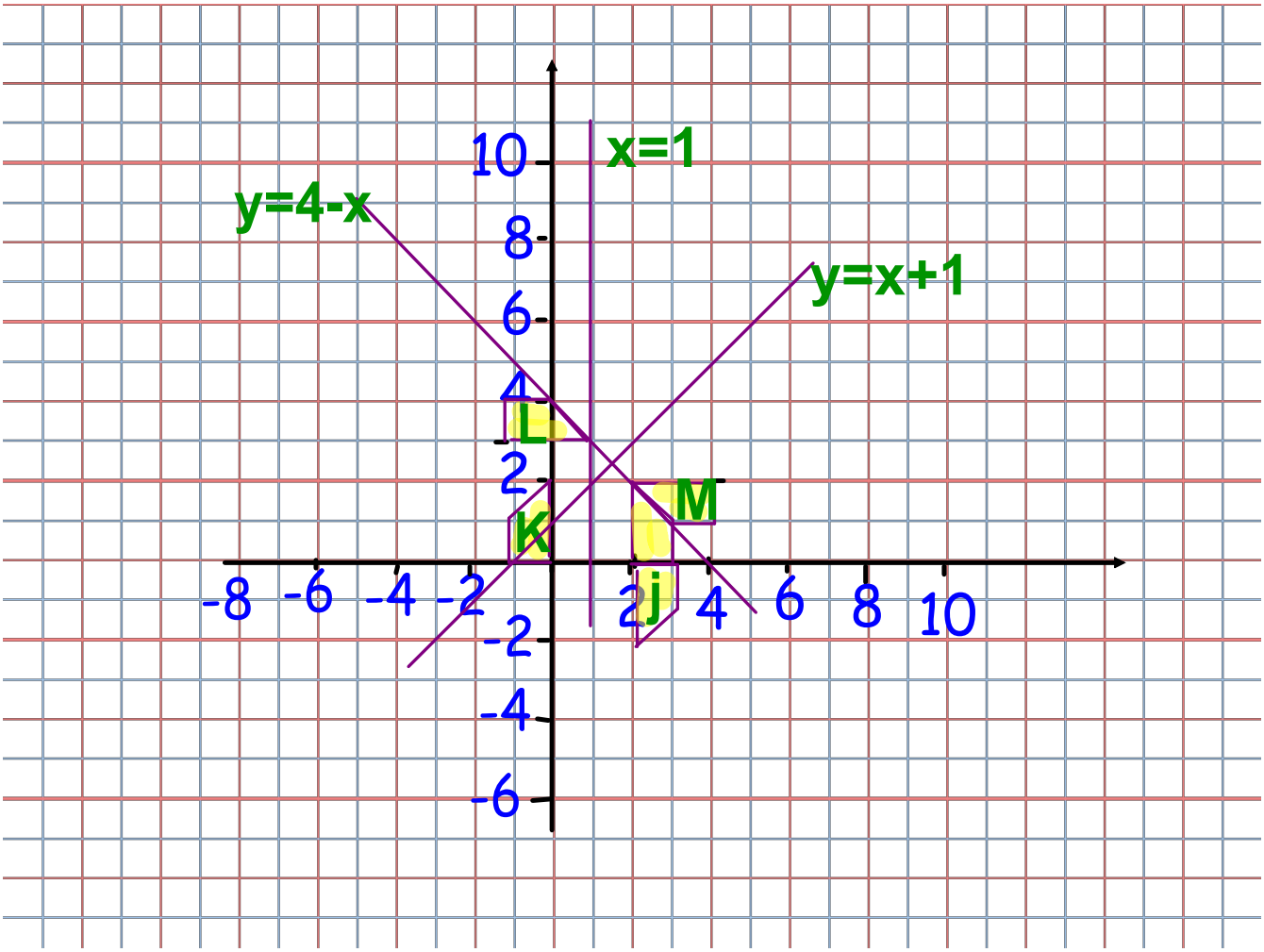
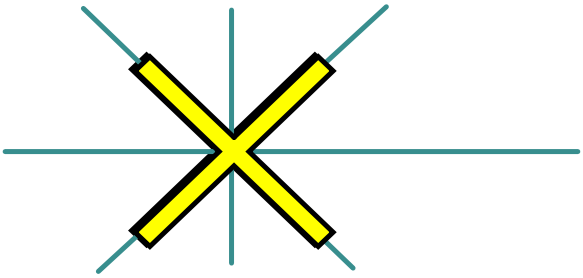

y=4-x
x=1
y=x+1
10
8
6
4
2
-2
-4
-6
-8
-6
-4
-2
2
4
6
8
10
L
M
K
j



Homework:

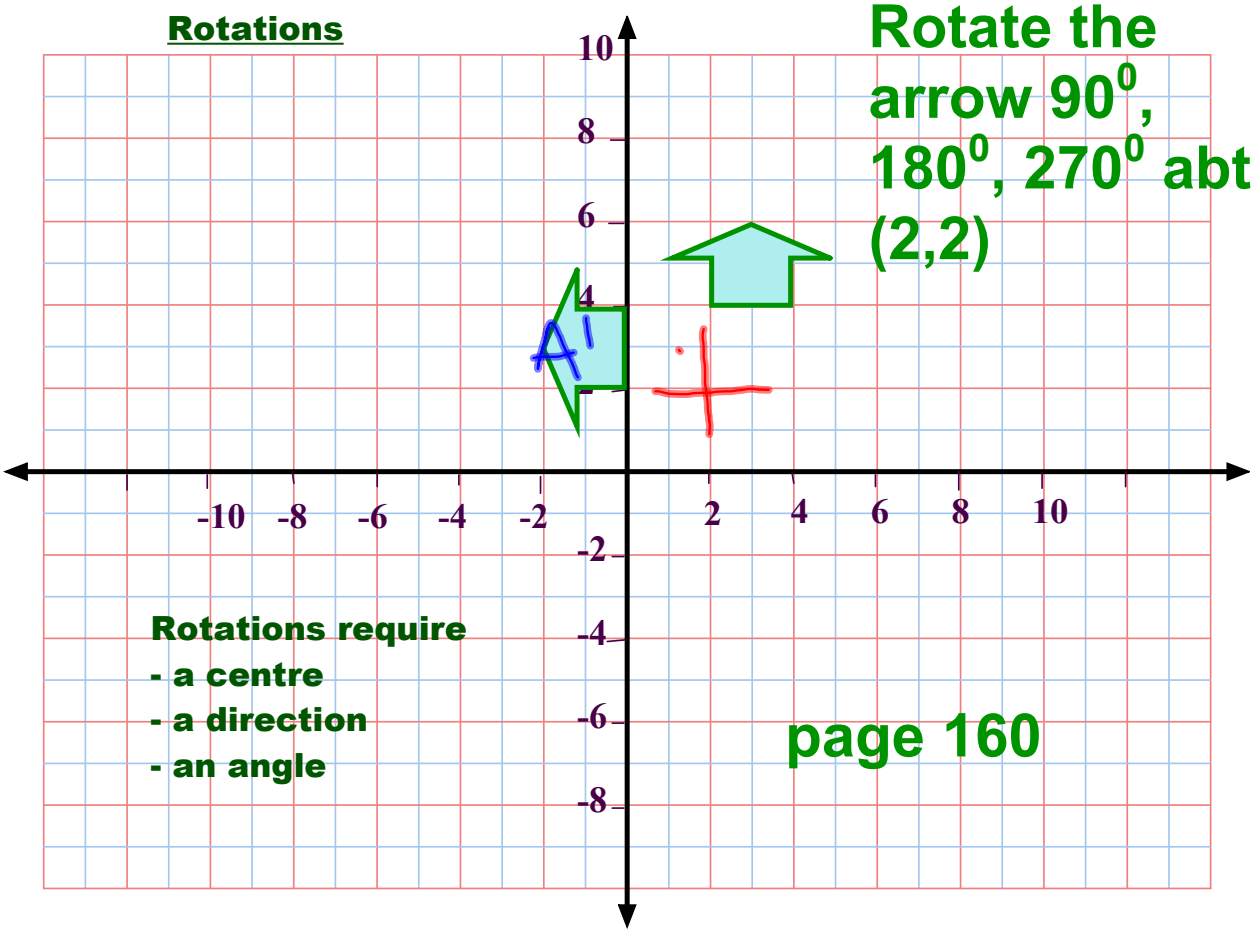
Draw

1) A shape with rotational symmetry order 2 but no reflectional symmetry

2) A shape with reflectional symmetry but no rotational symmetry.

3) A shape with rotational symmetry order 6.

Rotations



Rotate the arrow 90^0, 180^0, 270^0 abt (2,2)

Rotations require
- **a centre**
- **a direction**
- **an angle**

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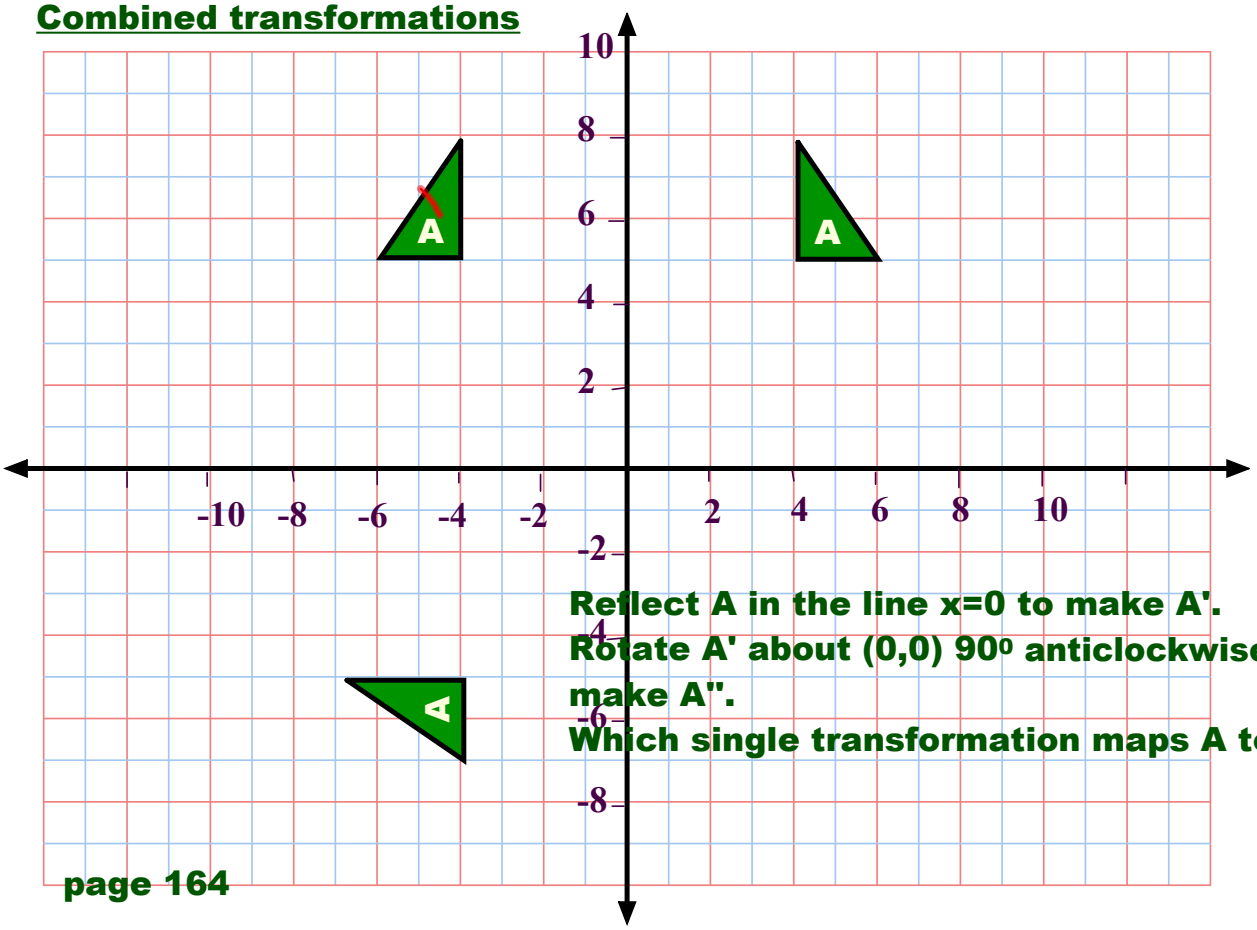
Combined transformations



Reflect A in the line x=0 to make A'.
Rotate A' about (0,0) 90º anticlockwise t
make A''.
Which single transformation maps A to A

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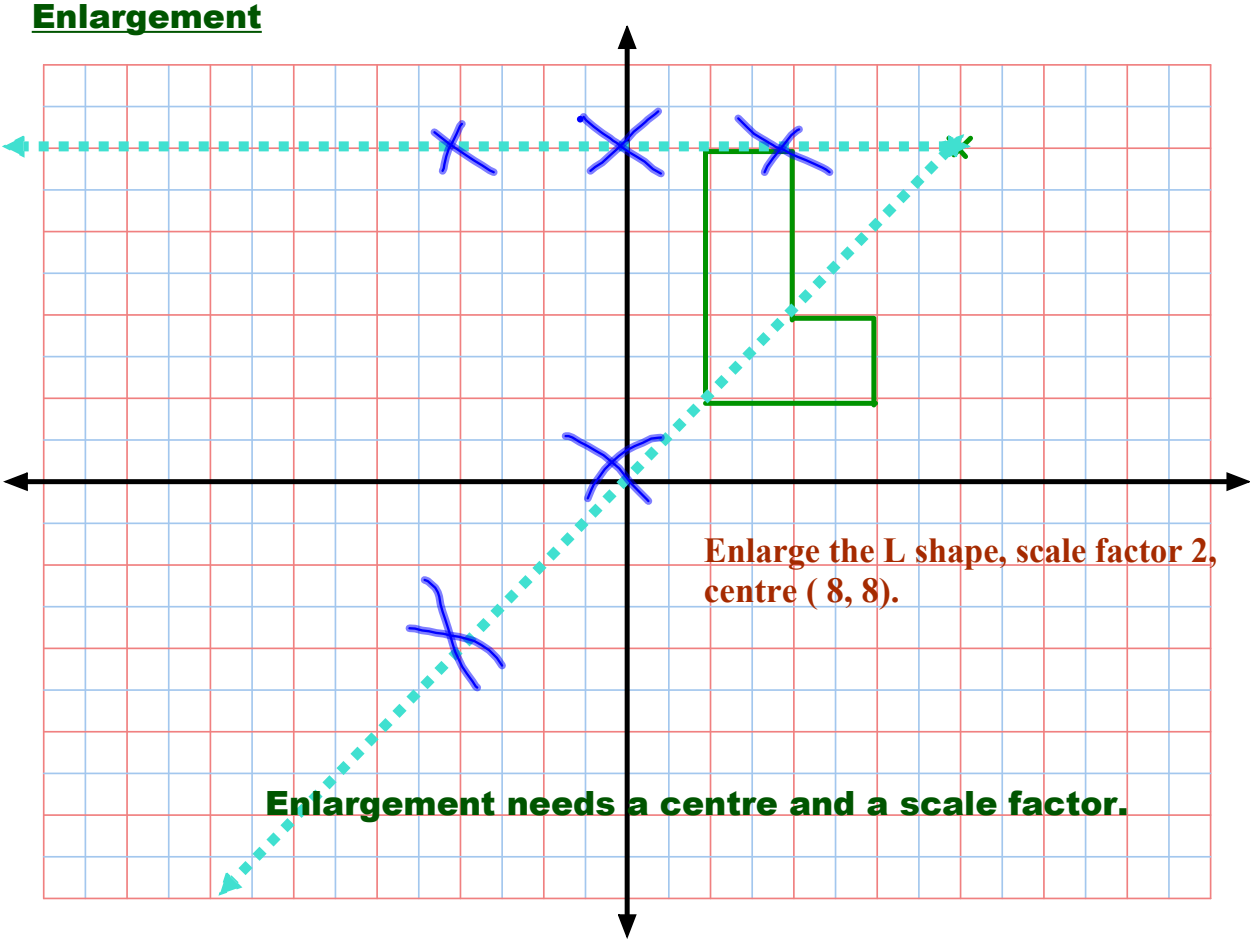
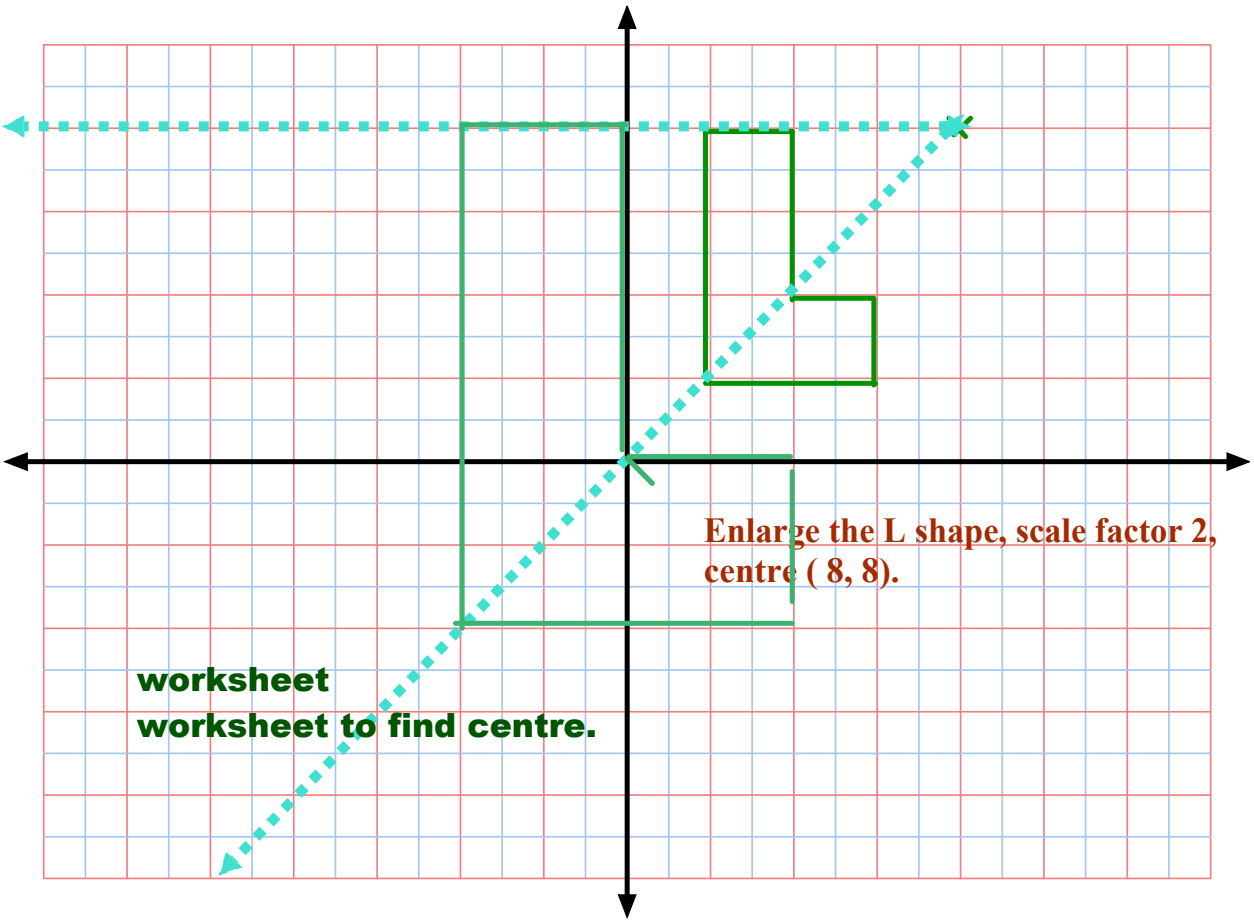
p165
Qu 6 and 7
? C8 use a point
? C9,10
For Friday

Enlargement



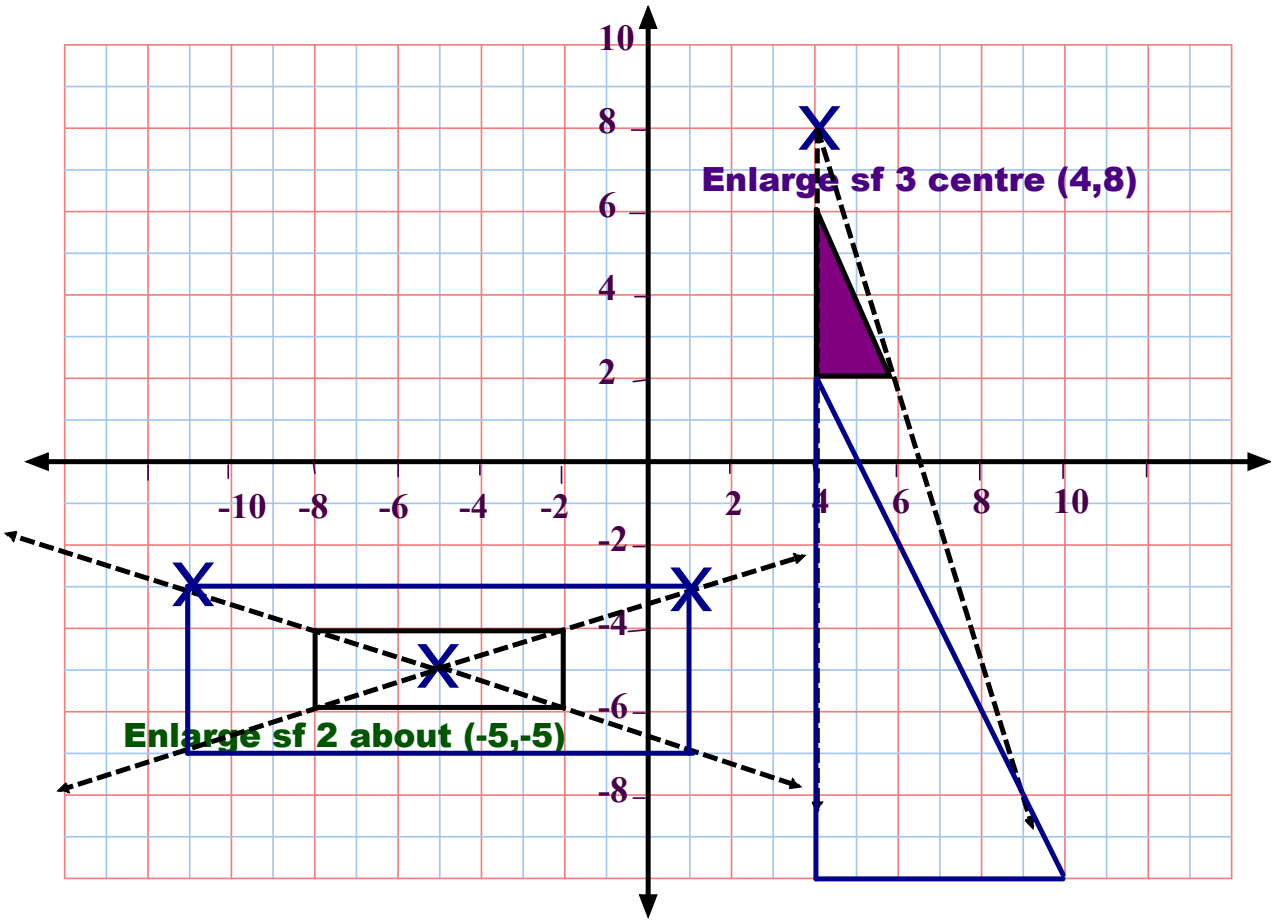
Enlarge the L shape, scale factor 2, centre (8, 8).

Enlargement needs a centre and a scale factor.

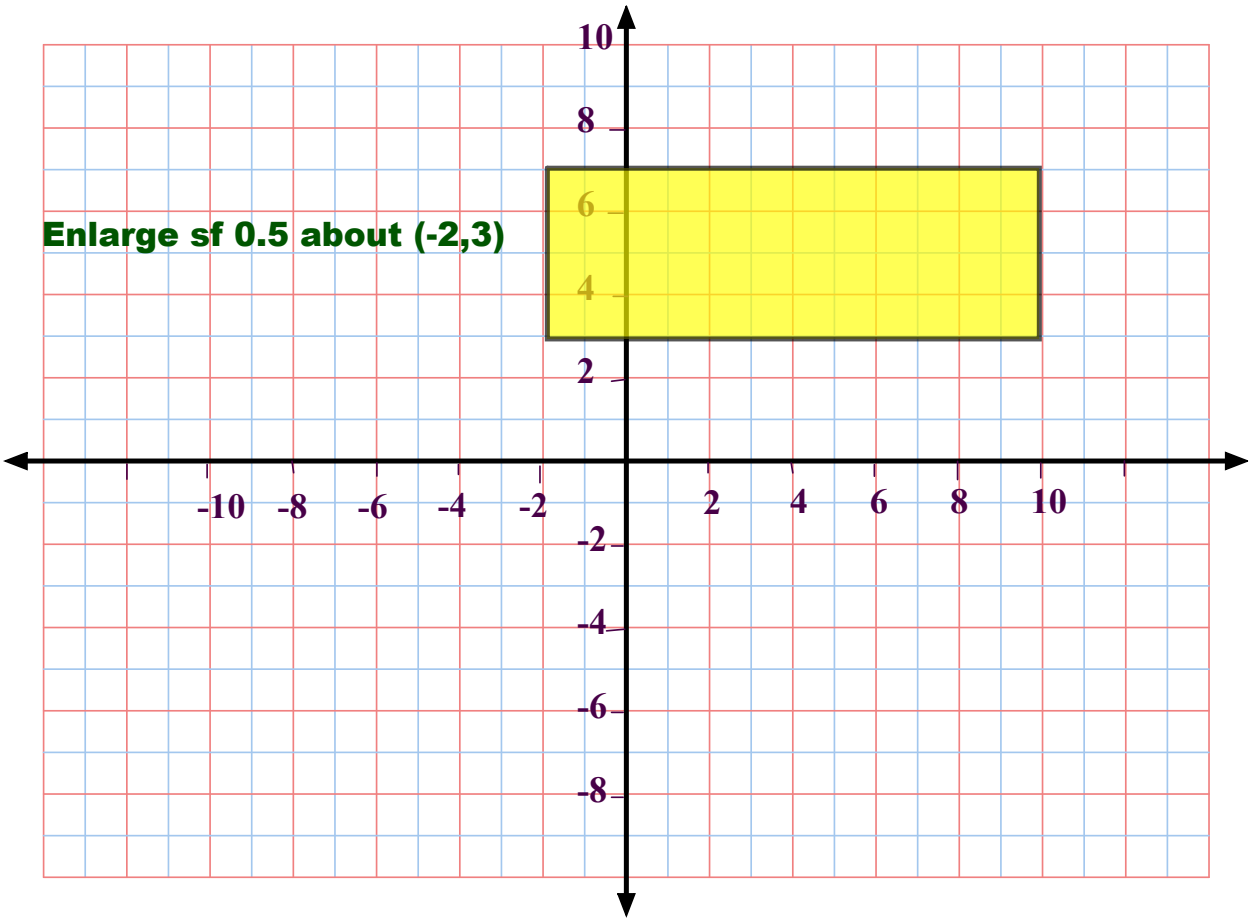


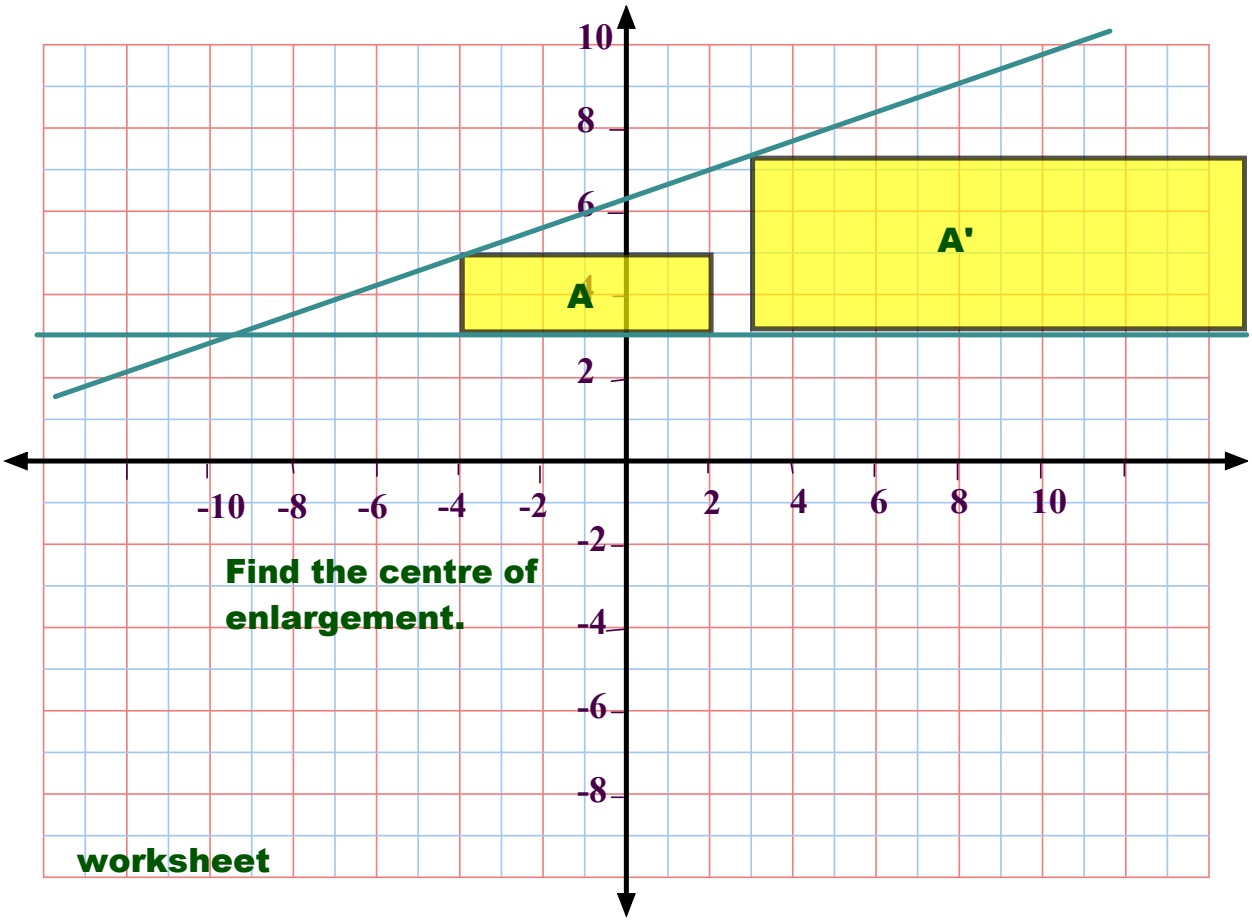
worksheet

worksheet to find centre.


Enlarge sf 3 centre (4,8)
Enlarge sf 2 about (-5,-5)
10
8
6
4
2
-2
-4
-6
-8
-10
-8
-6
-4
-2
2
4
6
8
10

Enlarge sf 0.5 about (-2,3)




10
8
6
4
2
-2
-4
-6
-8
-10
-8
-6
-4
-2
2
4
6
8
10
A
A'
Find the centre of
enlargement.
worksheet

Enlargement: Its effects on perimeter and area

TASK 1

This square measures 1 cm by 1 cm.

The perimeter of the square is 1 + 1 + 1 + 1 = 4 cm.

You are going to try to find out if there is a link between the scale factor of an enlargement and the perimeter of the shapes.

Copy the table below:

Scale factor of enlargement	Length of one side	~~Perimeter~~ Area of square
1	1	4x1=4
2		
3		
4		
5		

Write a sentence to describe what you think the perimeter will be if we enlarge the square by a scale factor of 6.

Write a sentence to describe what is happening to the perimeter as the scale factor increases.

Multiply perimeter by sf

TASK 2

A square measures 1 cm by 1 cm.

The area of the square is 1 x 1 = 1 cm^2.

You are going to try to find out if there is a link between the scale factor of an enlargement and the area of the shapes.

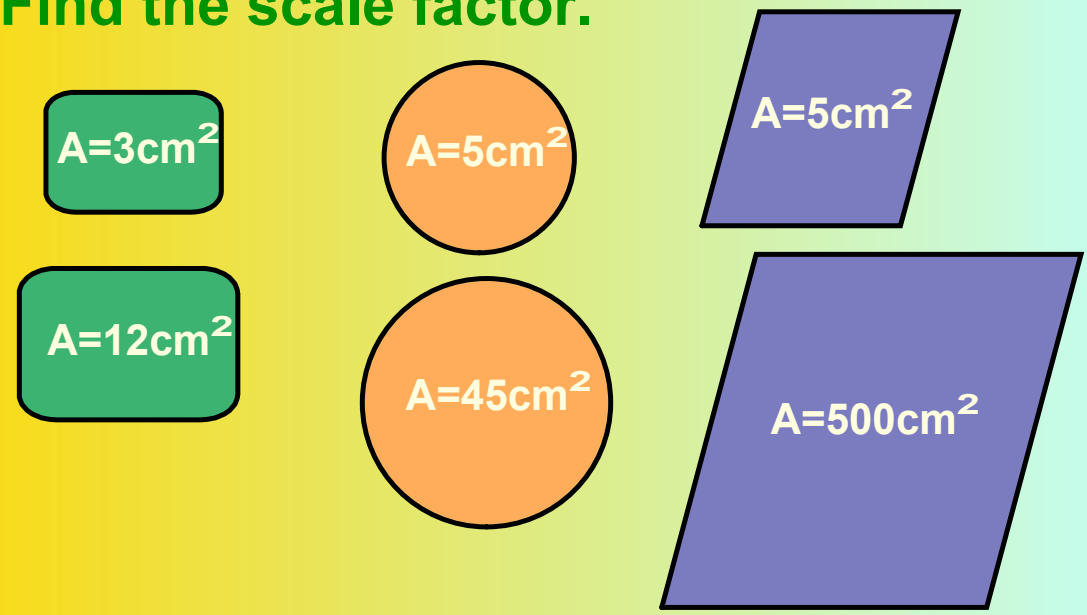
Draw a table similar to the one above, but include area instead of perimeter.

Enlarge the original square by a scale factor of 2 and work out the area. Fill in the values in the table.
Repeat for scale factors 3, 4 and 5.

Write a sentence to describe what you think the area will be if we enlarge the square by a scale factor of 6.

Write a sentence to describe what is happening to the area as the scale factor increases.

These shapes have been enlarged.
Find the scale factor.



Page 325 C5, C7, C9 onwards

What effect does enlargement have on volume?

Imagine a cube of side 1cm.
Investigate what will happen to the volume if we double the length of one side....triple and so on..

Page 328 D2, D3

plenary ppt

Attachments

Investigating effect of Enlargement on Area & Perimeter.doc

rotation.gsp

Similarity.ppt

similarity with millie.ppt