# Maths Knowledge Organiser

## Reflections

Reflection	The size does not change, but the shape is 'flipped' like in a mirror.	Reflect shape C in the line $y = x$
	Line $x = ?$ is a vertical line. Line $y = ?$ is a horizontal line. Line $y = x$ is a diagonal line.	

### Rotations

Rotation	The size does not change, but the shape is turned around a point.	Rotate Shape A 90° anti-clockwise about (0,1)
	Use tracing paper.	X. A.

## Translations

Translation	Translate means to move a shape. The shape does not change size or orientation.	Q R
		3 V P Q' 3 4 P P'
Column Vector	In a column vector, the top number moves left (-) or right (+) and the bottom number moves up (+) or down (-)	$\binom{2}{3}$ means '2 right, 3 up' $\binom{-1}{-5}$ means '1 left, 5 down'

#### **Describing Transformations**

Describing	Give the following information when describing each	- Translation, Vector
Transformations	transformation:	- Rotation, Direction, Angle, Centre
		- Reflection, Equation of mirror line
	Look at the number of marks in the question for a hint	- Enlargement, Scale factor, Centre of
	of how many pieces of information are needed.	enlargement
	If you are asked to describe a 'transformation', you need to say the name of the type of transformation as	
	well as the other details.	