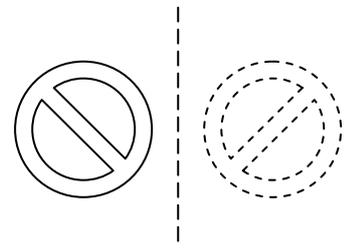
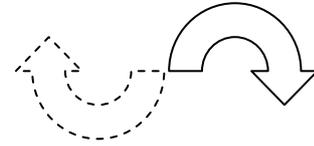


Reflection
requires a mirror line



Rotation
requires an angle
a direction (anti-clockwise is default)
and a point of rotation



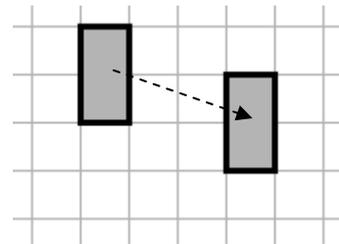
Vector
four to the right and three up

$$\begin{pmatrix} 4 \\ 3 \end{pmatrix}$$

Vector
two to the left and five down

$$\begin{pmatrix} -2 \\ -5 \end{pmatrix}$$

Translation
$$\begin{pmatrix} 3 \\ -1 \end{pmatrix}$$



Order of rotation

How many times an
object rotates onto
itself in 360°

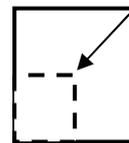
Order of symmetry

Number of mirror axes
+
Order of rotation

Y10

Enlargement includes reduction

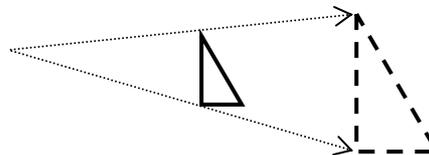
Requires a scale factor ($= \frac{1}{2}$)
and a point of enlargement



Y10

Enlargement

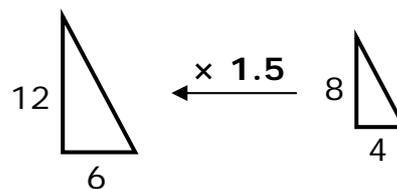
Requires a scale factor ($= 2$)
and a point of enlargement



Y10

Similar shapes

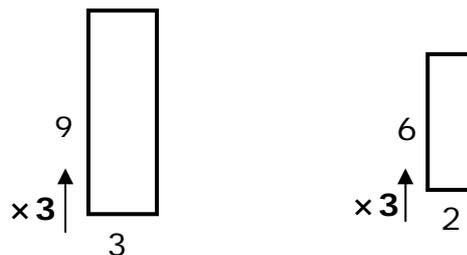
Have the same size angles and
a scale factor of enlargement



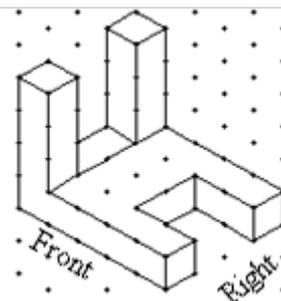
Y10

Similar shapes

Share a ratio
of side lengths



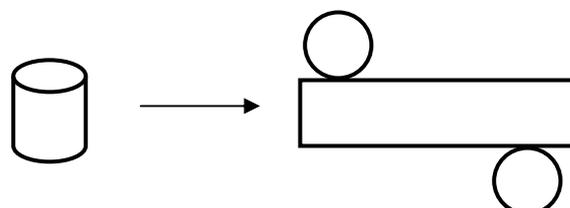
Isometric drawing



Tessellation

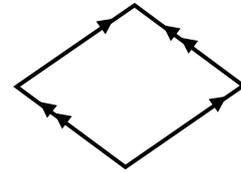


Net



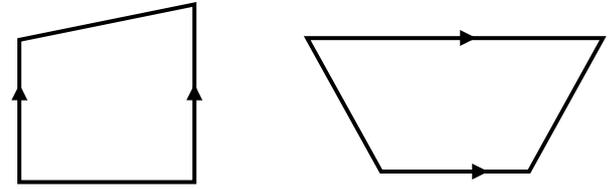
Rhombus

Axes of symmetry = 2
Rotational order = 2



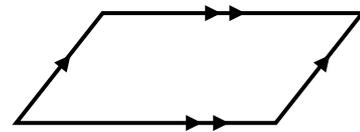
Trapezium

One pair parallel sides
No symmetry



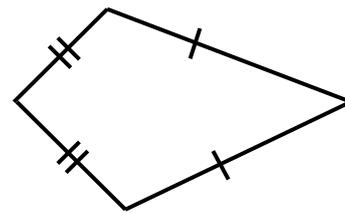
Parallelogram

Axes of symmetry = 0
Rotational order = 2



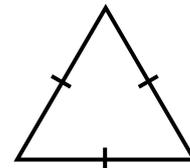
Kite

Axes of symmetry = 1
Rotational order = 1



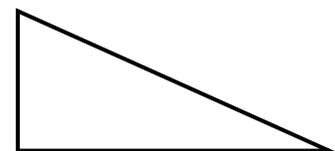
Equilateral triangle

Axes of symmetry = 3
Rotational order = 3



Scalene triangle

Axes of symmetry = 0
Rotational order = 1



Isosceles triangle

Axes of symmetry = 1
Rotational order = 1

