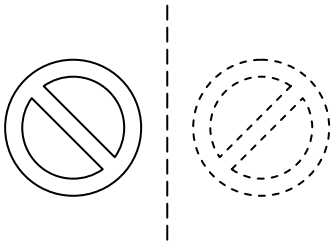
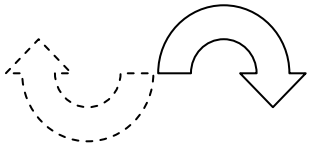
Reflection
requires a mirror line



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



Vector
four to the right and three up

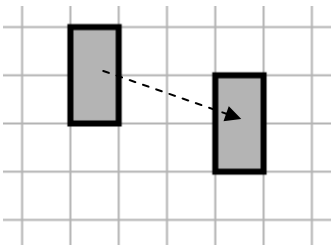
$$\begin{pmatrix} 4 \\ 3 \end{pmatrix}$$

Vector
two to the left and five down

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

Translation

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



Order of rotation

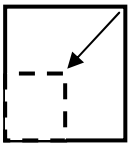
How many times an object rotates onto itself in 360°

Order of symmetry

Number of mirror axes
+
Order of rotation

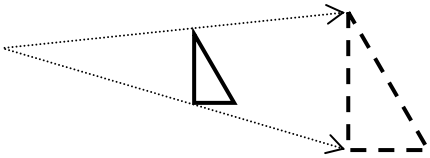
Enlargement includes reduction

Requires a scale factor (= ½)
and a point of enlargement



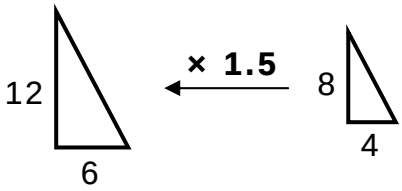
Enlargement

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



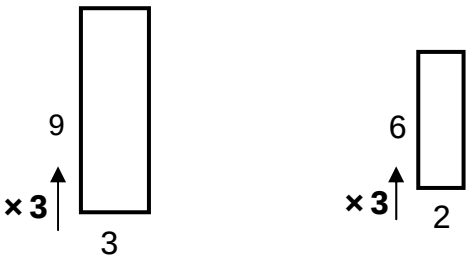
Similar shapes

Have the same size angles and
a scale factor of enlargement

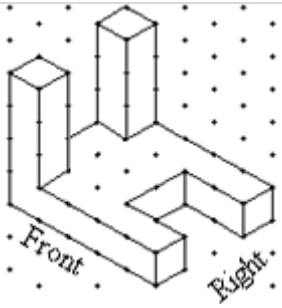


Similar shapes

Share a ratio
of side lengths

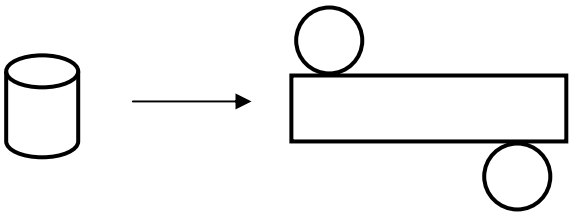


Isometric drawing



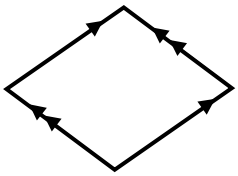
Tessellation

Net



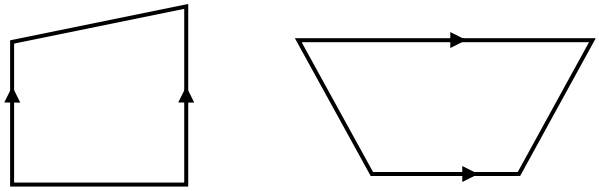
Rhombus

Axes of symmetry = 2
Rotational order = 2



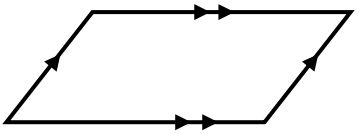
Trapezium

One pair parallel sides
No symmetry



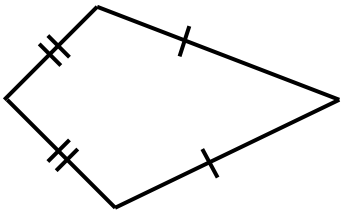
Parallelogram

Axes of symmetry = 0
Rotational order = 2



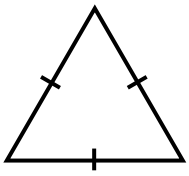
Kite

Axes of symmetry = 1
Rotational order = 1



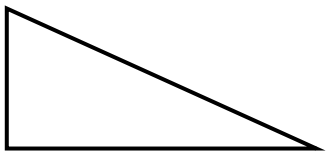
Equilateral triangle

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