

Key Vocabulary

angle
right angle
acute
obtuse
reflex
protractor
horizontal
vertical
parallel
perpendicular
polygon
regular
irregular
two-dimensional
three-dimensional
flat face
curved surface
edge
curved edge
vertex
apex

Regular and Irregular Polygons

Regular	Irregular

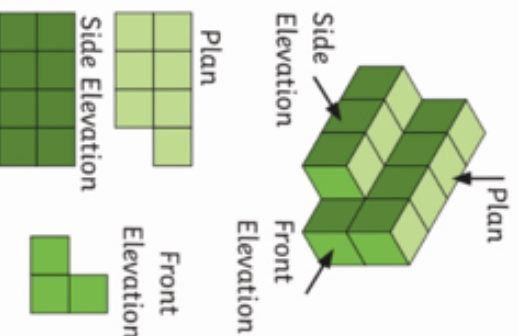
A polygon is any two-dimensional shape formed with straight lines.

In a regular polygon, all the sides and angles are equal.

In an irregular polygon, the sides and angles are not equal.

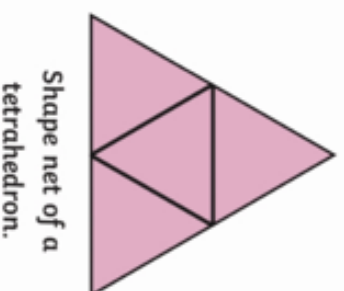
Representations

Cube models can be drawn as 2D representations using different elevations.



A shape net is a 2D drawing of an unfolded 3D shape.


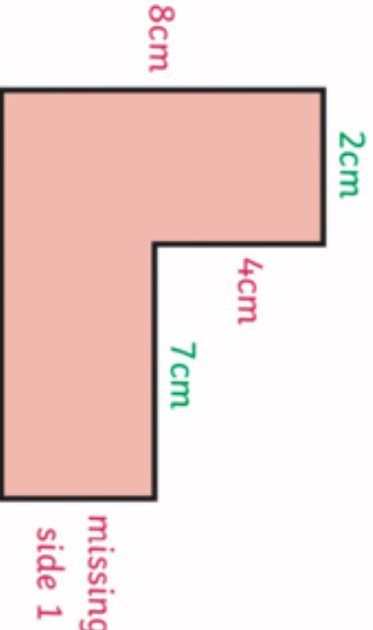


When you are drawing or reasoning about shape nets, think carefully about where the edges of the faces meet.



Properties of 3D Shapes

Name	Surfaces		Edges		Vertices	Picture
	Flat	Curved	Flat	Curved		
sphere	0	1	0	0	0	
cube	6	0	12	0	8	
cuboid	6	0	12	0	8	
cone	1	1	0	1	0	
cylinder	2	1	0	2	0	
square-based pyramid	5	0	8	0	5	
tetrahedron	4	0	6	0	4	
triangular prism	5	0	9	0	6	
pentagonal prism	7	0	15	0	10	
hexagonal prism	8	0	18	0	12	
octagonal prism	10	0	24	0	16	
octahedron	8	0	12	0	6	

A cone has an apex. This is because a vertex is the point where two straight edges meet and a cone has no straight edges.

Key Vocabulary	Measure Perimeter	Calculate Perimeter
metre	<p>Measure the perimeter of a rectangle:</p>  <p>Measure the length (l) and width (w). Perimeter = $l + w + l + w$ or $(l + w) \times 2$</p>	<p>Calculate the missing sides of this rectilinear shape to find the perimeter:</p>  <p>missing side 2</p>
kilometre	<p>Measure the perimeter of regular shapes:</p>  <p>Measure the length (l) and count the number of sides (s) on the shape. Perimeter = $l \times s$</p>	<p>* This shape is not drawn to the dimensions specified.</p> <p>Missing side 1 + 4cm = 8cm, so missing side 1 = 4cm.</p> <p>Missing side 2 = 2cm + 7cm = 9cm</p>
perimeter	<p>Measure the perimeter of irregular shapes:</p>  <p>Measure the length of each side and add them together.</p>	<p>Perimeter = sum of all sides = $2\text{cm} + 4\text{cm} + 7\text{cm} + 4\text{cm} + 9\text{cm} + 8\text{cm} = 34\text{cm}$</p>
length		
width		
rectangle		
rectilinear		
dimensions		