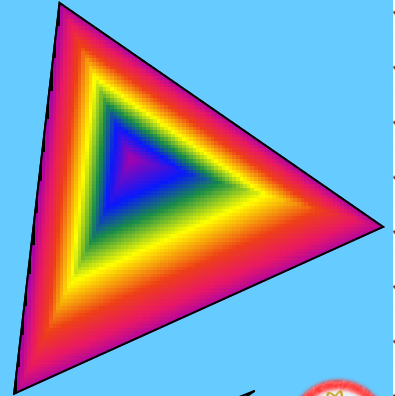# Regular Award
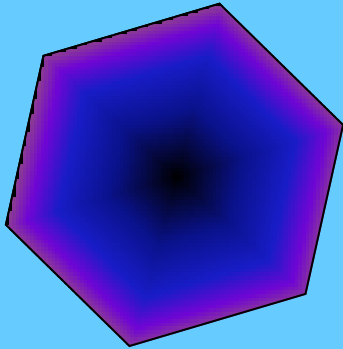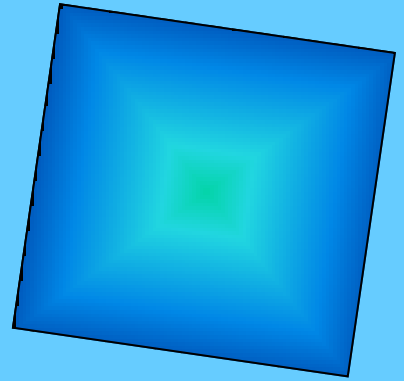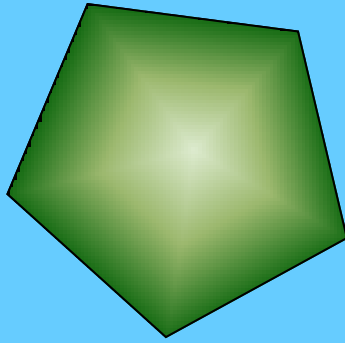
Regular polygons (2D shapes) have all sides and angles the same.
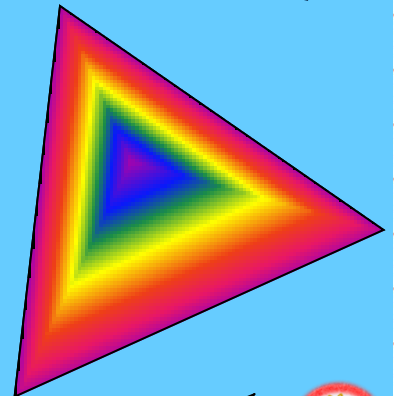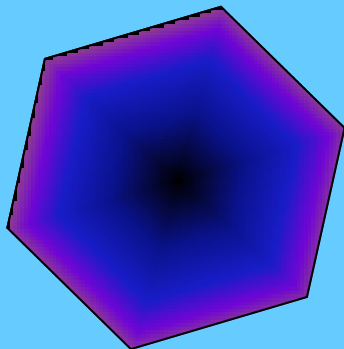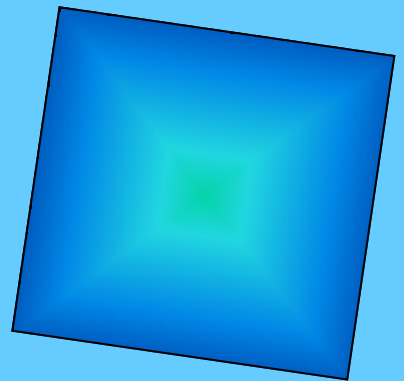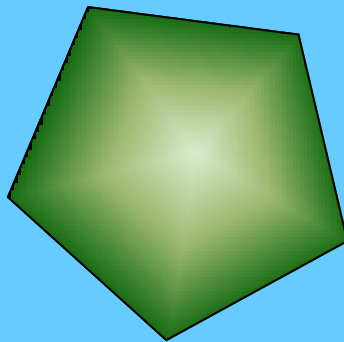
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1 got his/her FIRST certificate!!!

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Regular Award

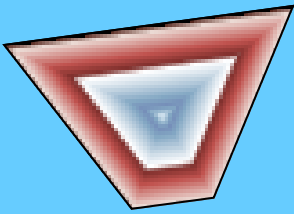Regular polygons (2D shapes) have all sides and angles the same.

_____

1 got his/her FIRST certificate!!!

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Irregular Award

Irregular polygons (2D shapes) have at least one side a different length than the others.
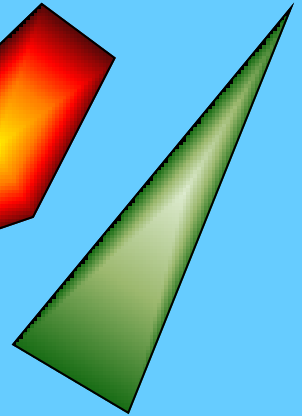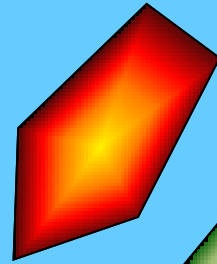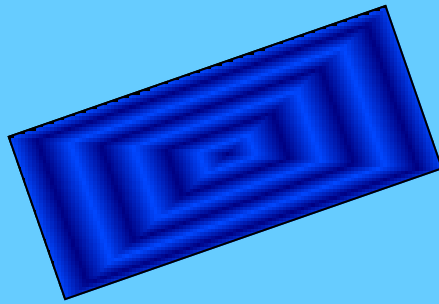
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2 got his/her SECOND certificate!!!

Irregular Award

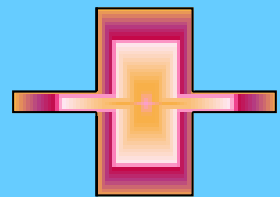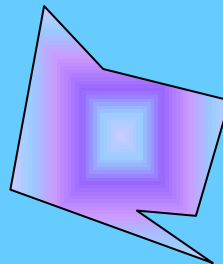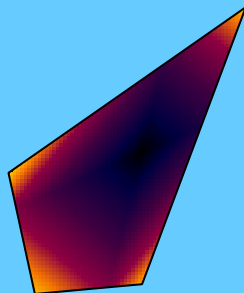Irregular polygons (2D shapes) have at least one side a different length than the others.
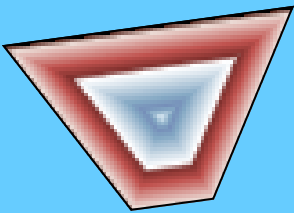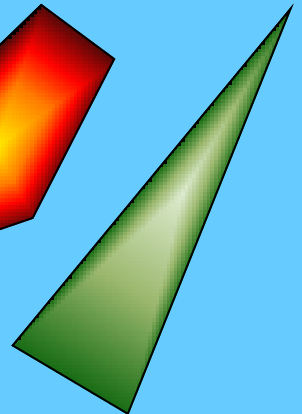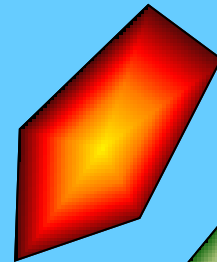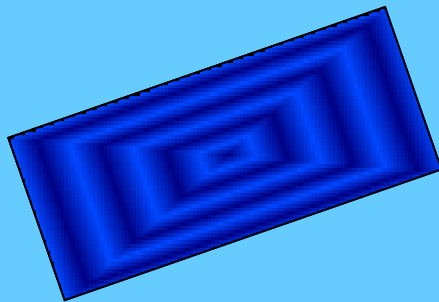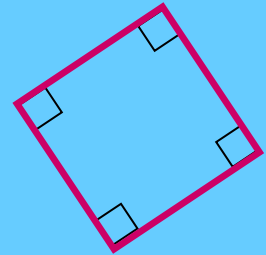
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2 got his/her SECOND certificate!!!

Right Angle Award

A right angle has 90°. It is a quarter of a turn because a whole turn is 360°. You can measure it by using a protractor or the corner of a piece of paper. You show a right angle by using a square in the angle.

90°

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3 got his/her THIRD certificate!!!

_____

Right Angle Award

A right angle has 90°. It is a quarter of a turn because a whole turn is 360°. You can measure it by using a protractor or the corner of a piece of paper. You show a right angle by using a square in the angle.

90°

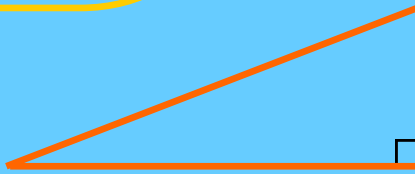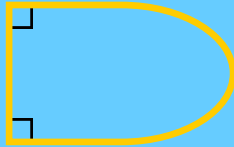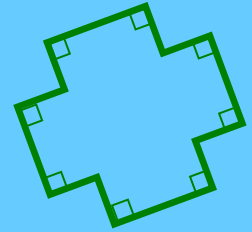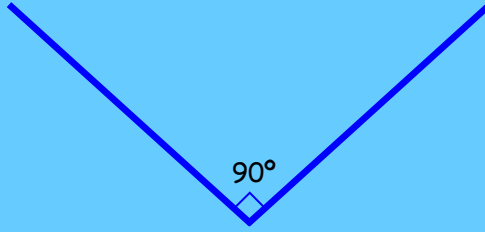© 2012 PrimaryClass.co.uk

3 got his/her THIRD certificate!!!

_____

Acute Angle Award

An acute angle is an angle with less than 90°.

40°

80°

25°

89°

45°

60° 65°

55°

4 got his/her FOURTH certificate!!!

_____

Acute Angle Award

An acute angle is an angle with less than 90°.

40°

80°

25°

89°

45°

60° 65°

55°

4 got his/her FOURTH certificate!!!

_____

Other Angles Award

An obtuse angle is an angle that is between 91° and 179°.

Reflex angles can be between 181° and 359°.

A straight line is 180°.

A full turn is 360°.
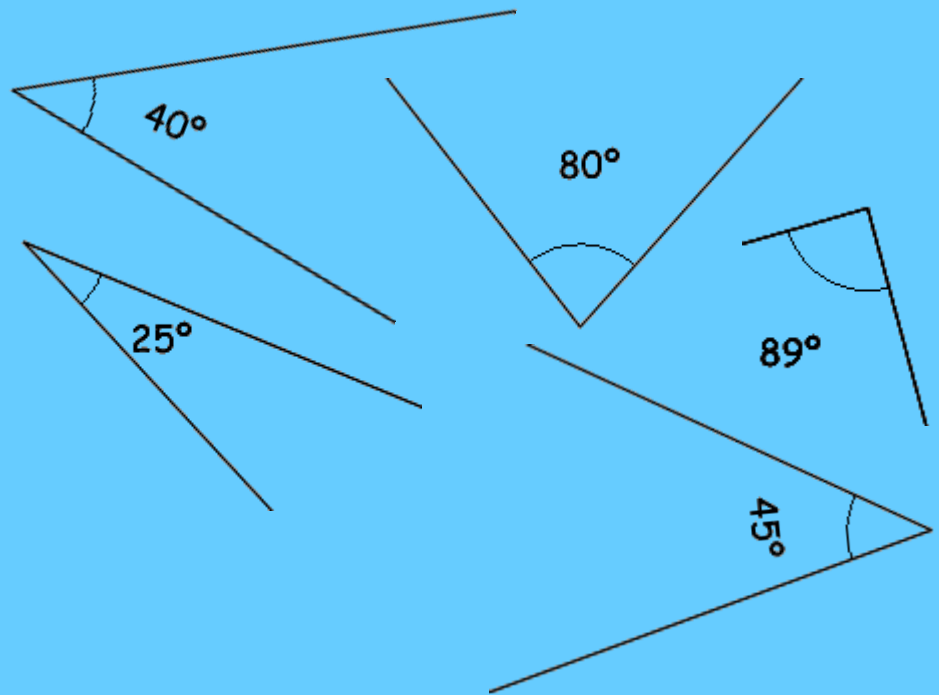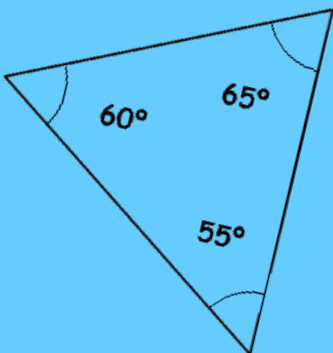
135°

170°

95°

Obtuse Angles

235°

180°

360°

© 2012 PrimaryClass.co.uk
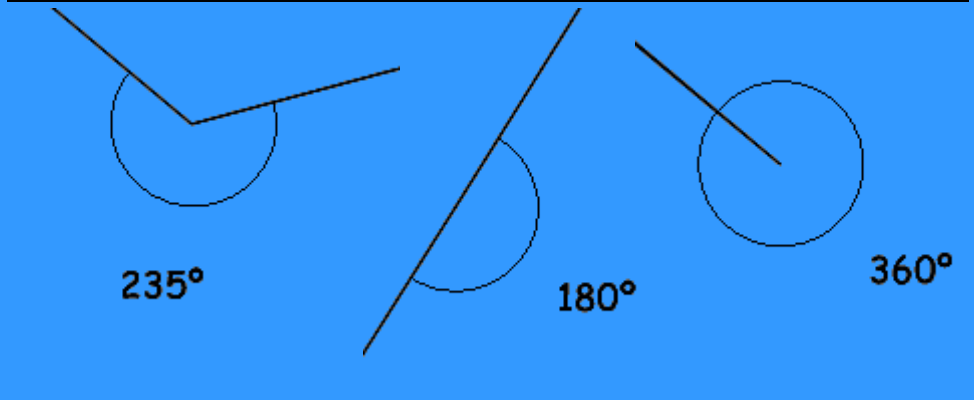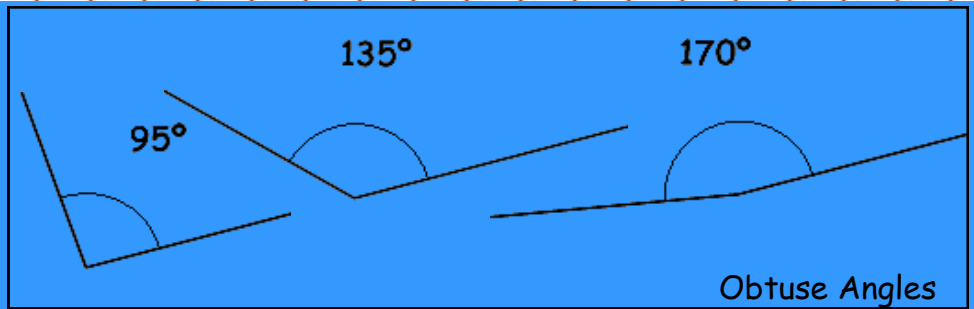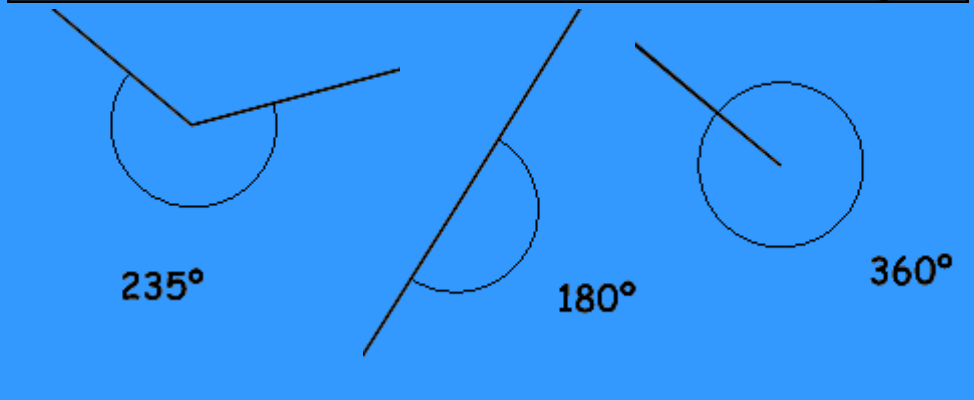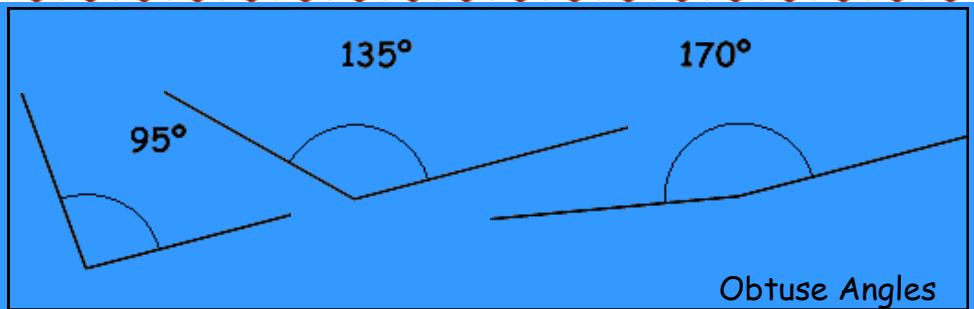
5 got his/her FIFTH certificate!!!

_____

Other Angles Award

An obtuse angle is an angle that is between 91° and 179°.

Reflex angles can be between 181° and 359°.

A straight line is 180°.

A full turn is 360°.

135°

170°

95°

Obtuse Angles

235°

180°

360°

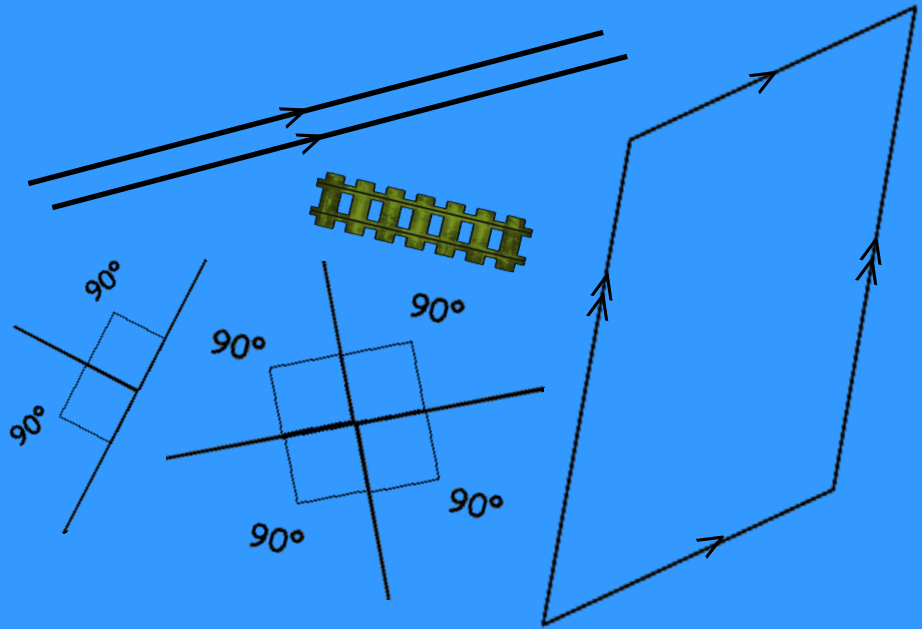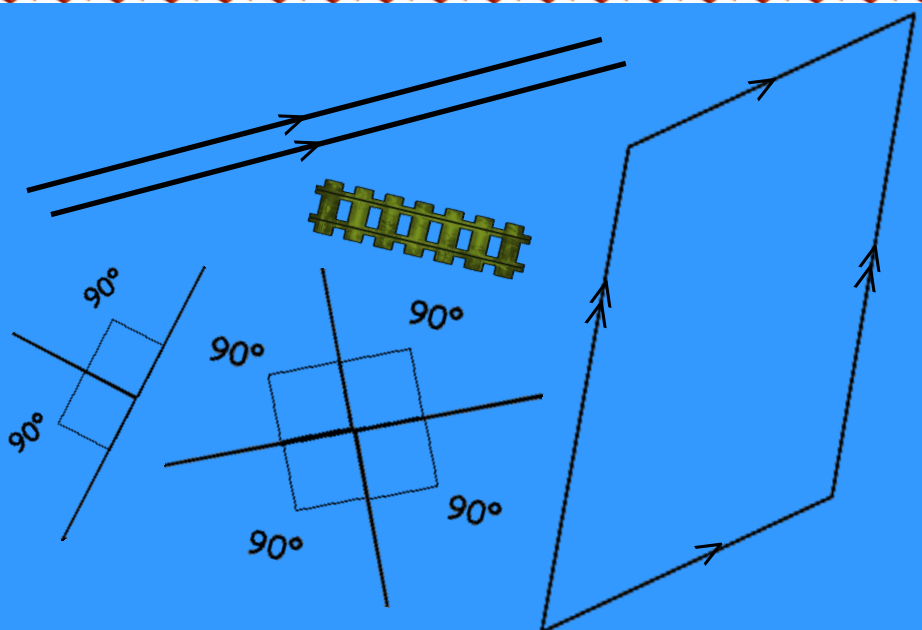© 2012 PrimaryClass.co.uk

5 got his/her FIFTH certificate!!!

_____

Parallel Award

Parallel lines run next to each other and are always the same distance apart. No matter how long they are, they will never cross. They are often shown by the > sign.

Perpendicular lines always meet or cross at 90°.

90°
90°
90°
90°
90°
90°
90°

6 got his/her SIXTH certificate!!!
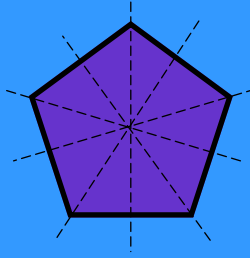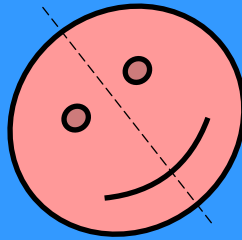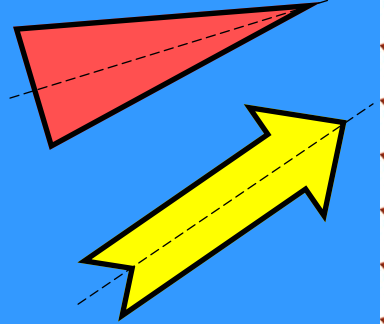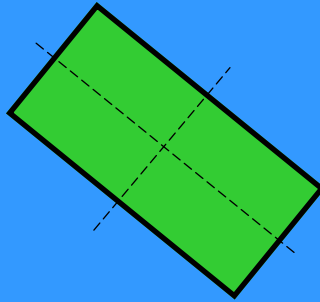

Symmetry Award

A polygon has reflective symmetry if one half is the mirror image of the other half.

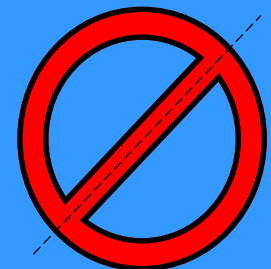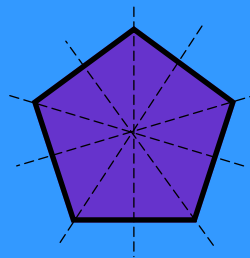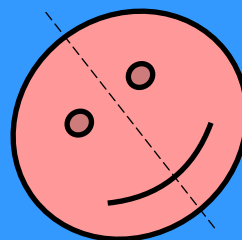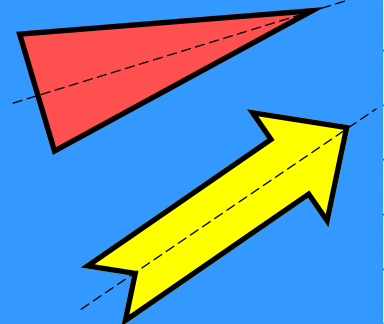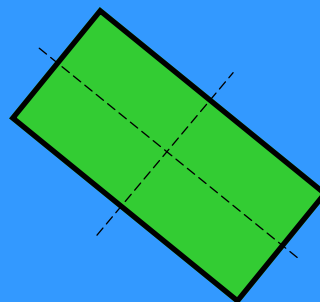Some polygons can have many lines of symmetry. This is called rotational symmetry.
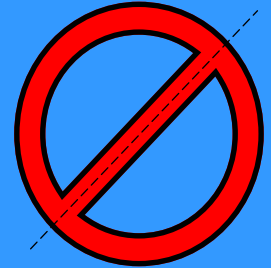
7 got his/her SEVENTH certificate!!!!

_____

Triangle Award

Triangles are polygons with 3 angles and 3 sides. When you add their angles, it always makes 180°.

Equilateral triangles have all sides the same length, and all angles 60°.
Isosceles triangles have 2 angles and sides the same.
Scalene triangles have all sides and angles different.
A right angle triangle will have 1 right angle in it.

Equilateral
40 mm 60°
60°
40 mm
40 mm 60°
60°

Isosceles
40°
50 mm
50 mm
70°
70°
35 mm

Scalene
95°
65 mm
30 mm
24°
61°
74 mm
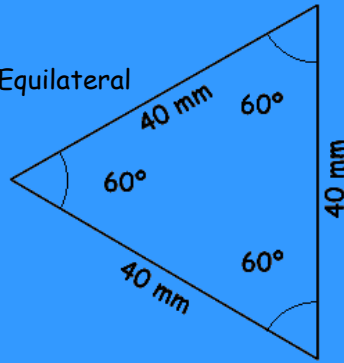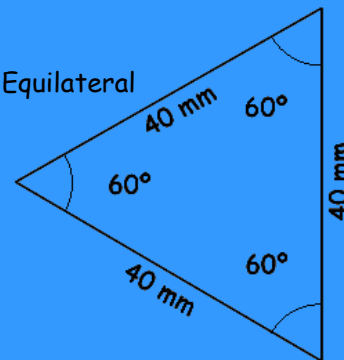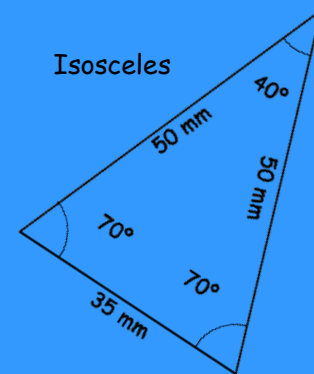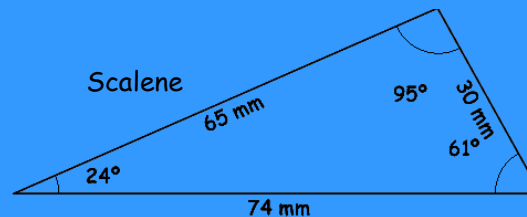
30° 50 mm
90°
30 mm
59 mm
60°
Right Angle
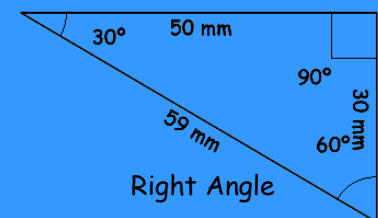
© 2012 PrimaryClass.co.uk
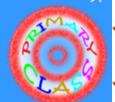
8 got his/her EIGHTH certificate!!!

_____

Quadrilateral Award

Quadrilaterals are polygons with 4 sides. There are many special quadrilaterals.
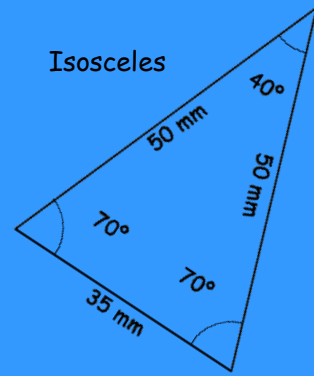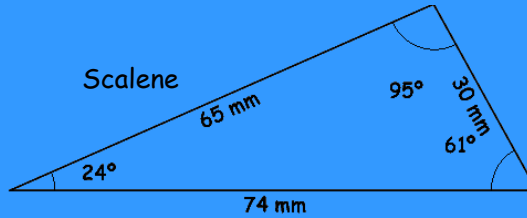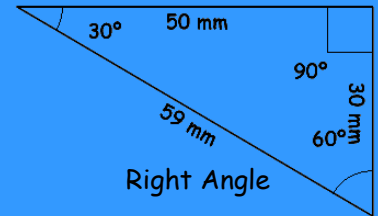
Rectangles have 4 right angles, opposite sides equal length and 2 pairs of parallel lines. A square has all this, but are regular.

A trapezium has 1 pair of parallel lines, and parallelogram 2 pairs. A rhombus is a parallelogram that is regular.

Trapezium

Rectangle
6cm
2cm
2cm
6cm
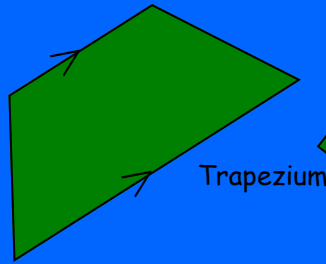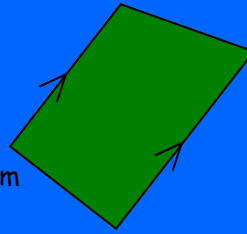
Square
3cm
3cm
3cm
3cm
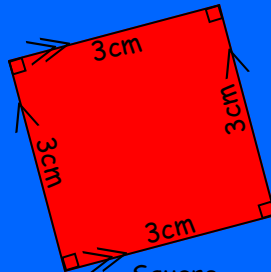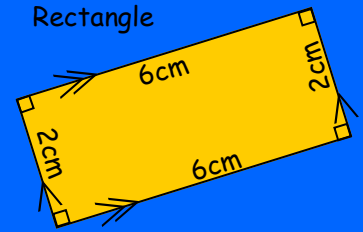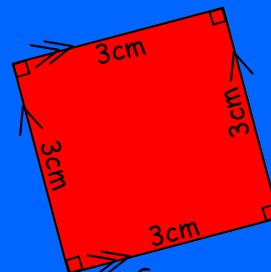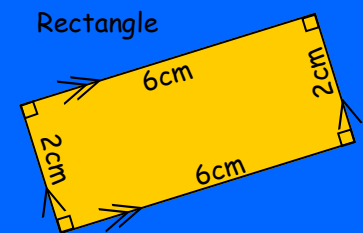
Rhombus
3cm
3cm
3cm
3cm
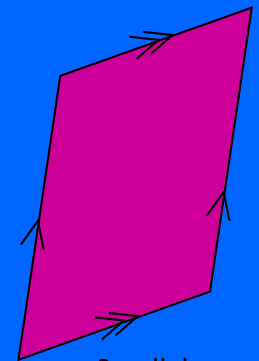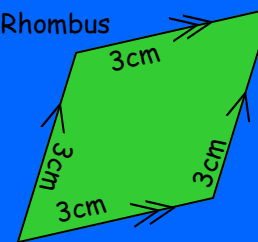
Parallelogram

9 got his/her NINTH certificate!!!

Pentagon Award

Pentagons are any 2D polygon with 5 sides

Hexagons have 6 sides.

Septagons have 7 sides, and may also be called heptagons.
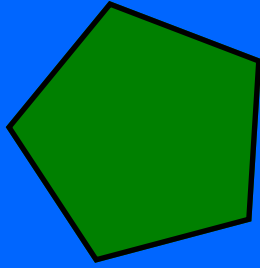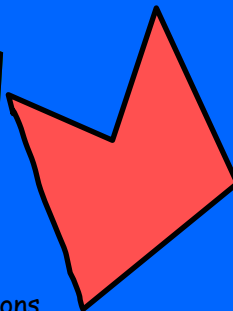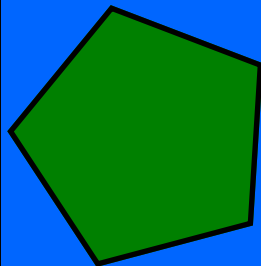
Pentagons
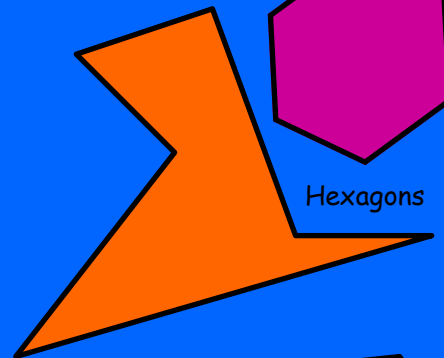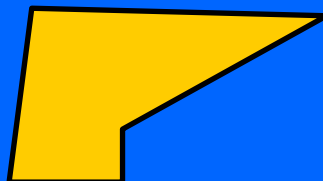
Hexagons

Septagons

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10 got his/her TENTH certificate!!!

Octagon Award

Octagons are 2D polygons with 8 sides.

Nonagons have 9 sides.

Decagons have 10 sides.

Octagons

Decagons

Nonagons

11 got his/her ELEVENTH certificate!!!

_____
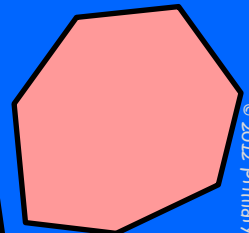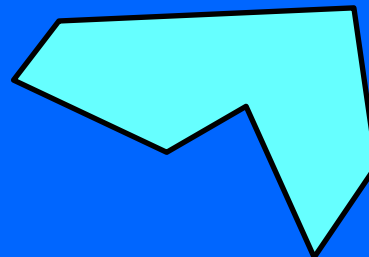
3D Award

1 dimension is just like a straight line.
2 dimensions mean you have height and width.
3 dimensions mean you have height, width and depth.

Often with 3D shapes, a line is called an edge. A corner is a vertex (vertices), and the flat part is the face.

_____

1 dimension

2 dimensions

3 dimensions

edge

vertex

face

12 got his/her TWELTH certificate!!!

_____

Nets
Award

A net is a flat 2D shape that when folded makes a 3D shape.

Most cardboard boxes are made from flat cardboard. Try taking apart a cereal box without ripping it to see its net.
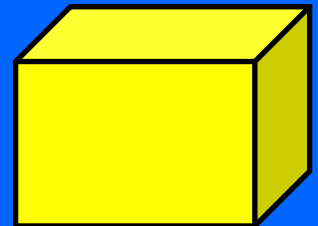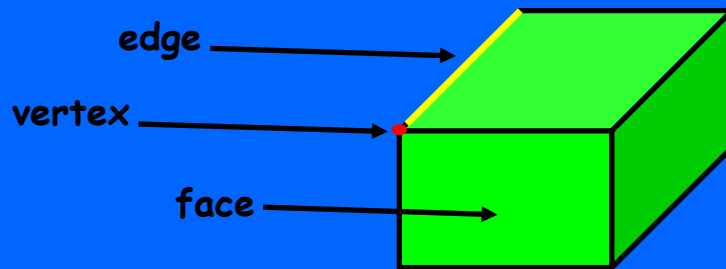
13 got his/her _____ THIRTEENTH certificate!!!
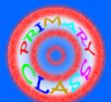
Cuboid Award

Cuboids have 6 faces that are all rectangular. Therefore all the vertices are at right angles.

A cube is a special type of cuboid as each face is a square (which is a special type of rectangle).
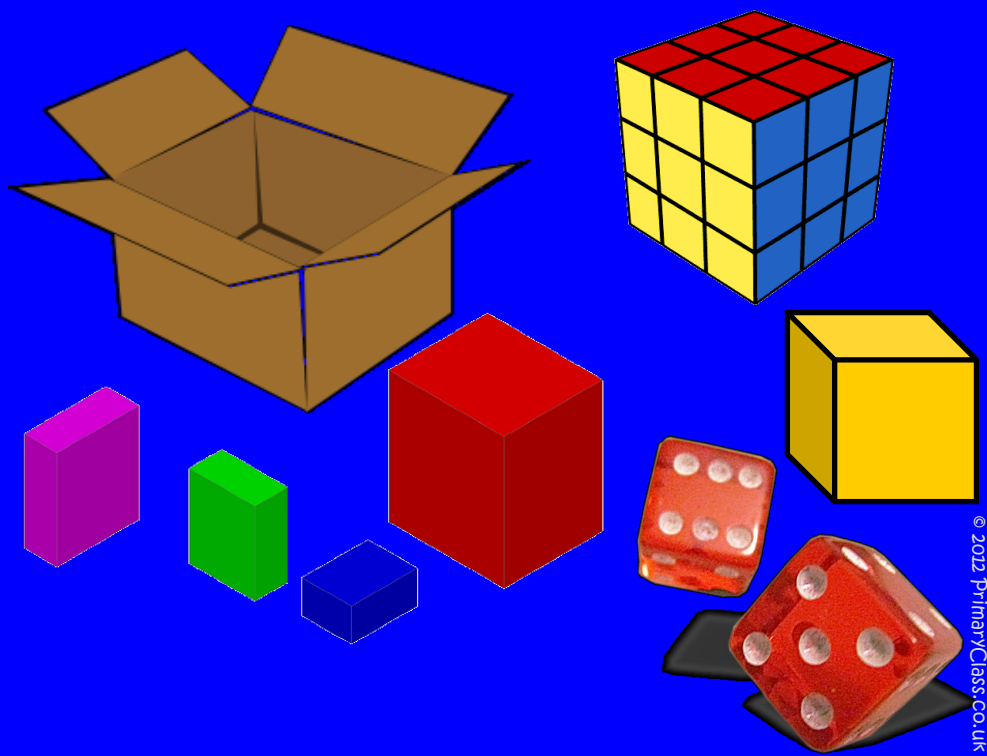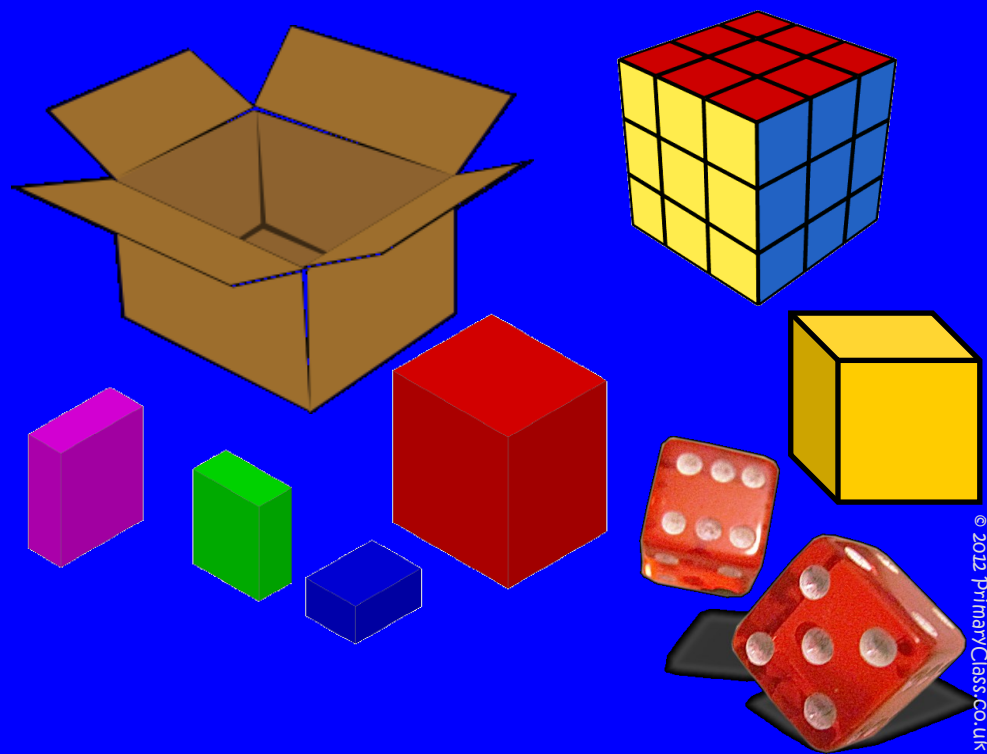
14 got his/her **FOURTEENTH** certificate!!!

Prism Award

Prisms are 3D shapes that have the same 2D shape at both ends. Prisms do not have curved faces.

The name of the 2D shape helps name the prism. For example, if the shape at both ends are triangles, the 3D shape is called a Triangular Prism.
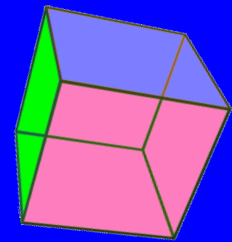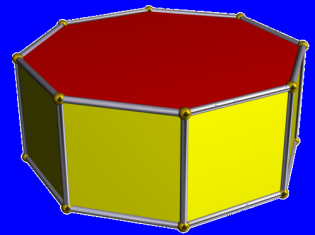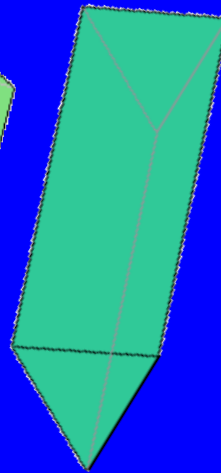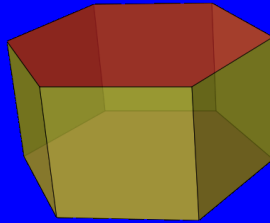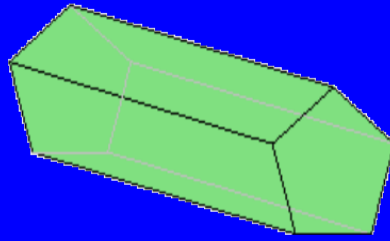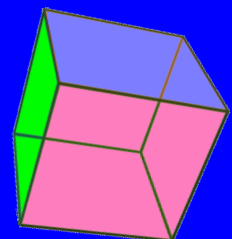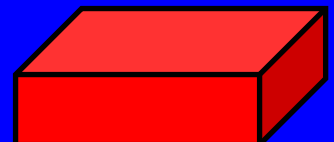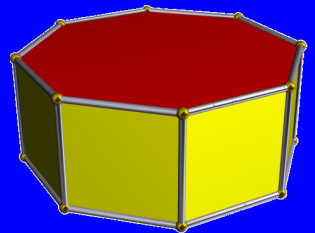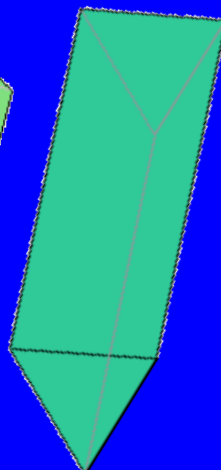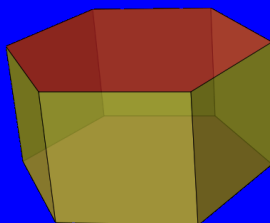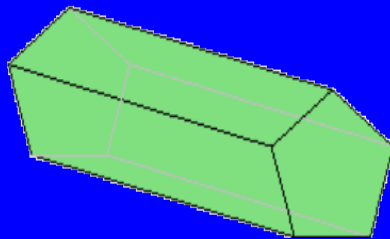
15 got his/her FIFTEENTH certificate!!!

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Pyramid Award

Pyramids have a 2D shape at its base, but unlike prisms, the other end meets at one point or vertex.

Like prisms, the shape of the 2D shape helps name it. For example, if the base is a square, then it is called a Square Based Pyramid.
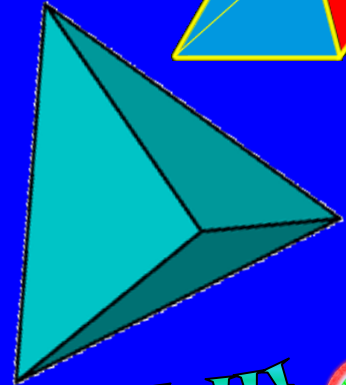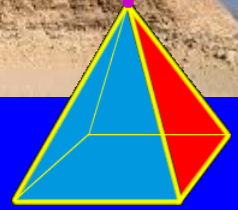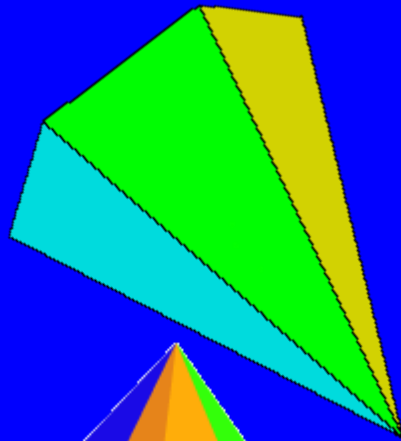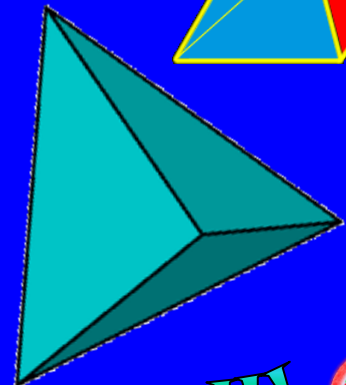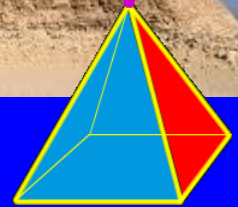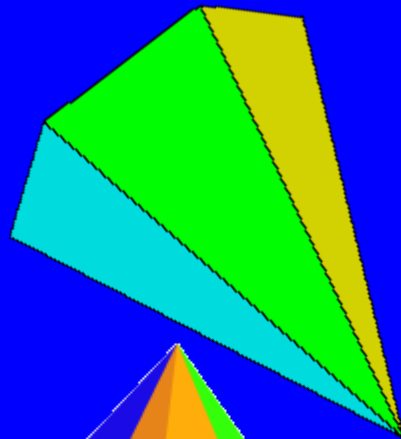
16 got his/her SIXTEENTH certificate!!!

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Sphere Award

A sphere is 3D shape that has no vertices or edges, just one curved face that is always equal distance from the centre.

A hemisphere is half of a sphere. It may also be called a semisphere.
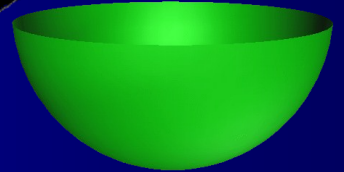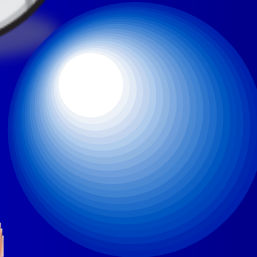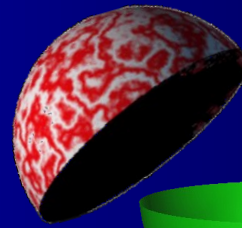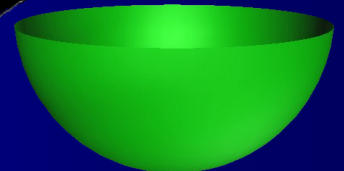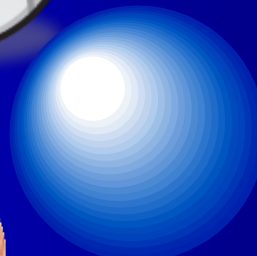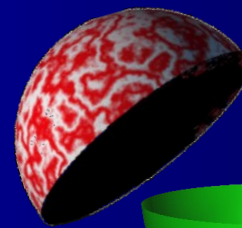
17 got his/her SEVENTEENTH certificate!!!

Cylinder Award

A cylinder is a 3D shape with 2 identical circular ends. It is not a prism as prisms do not have curved faces.
Cones are the only shape with just one vertex. There are 2 faces, one curved and one flat. The flat face is circular.
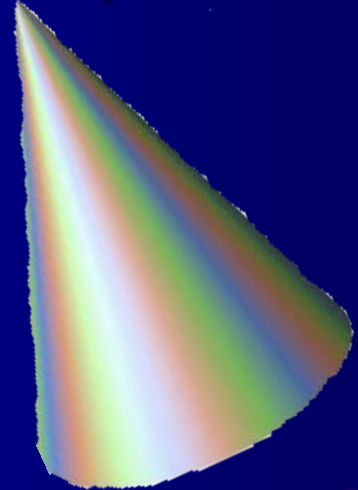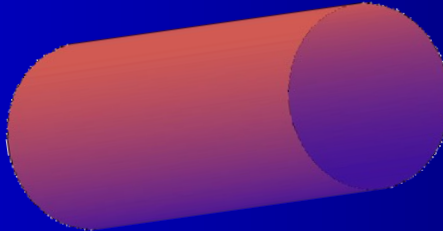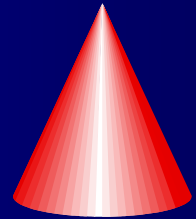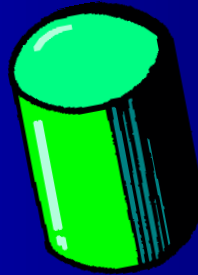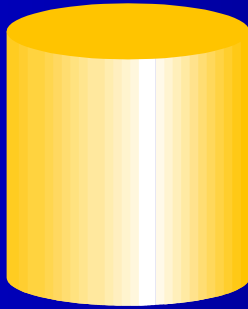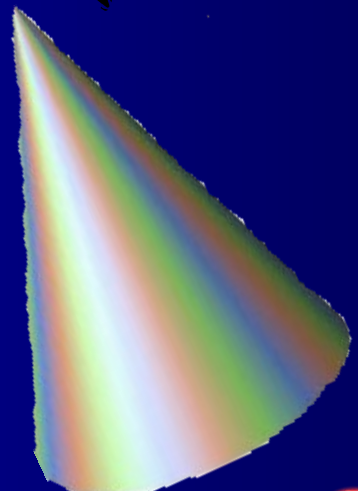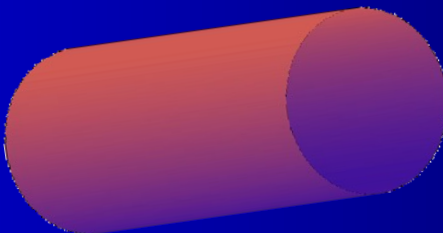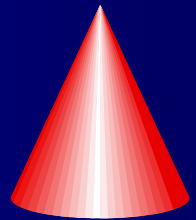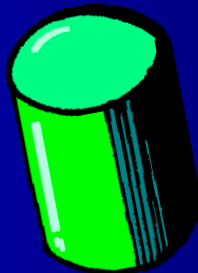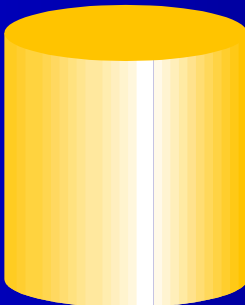
18 got his/her EIGHTEENTH certificate!!!

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Perimeter Award

The perimeter is the total distance around a 2D shape.
A circle has a special name for it's perimeter called the circumference.

Use a small dot so you know where to start and finish counting from.

Perimeter:
6cm+2cm+6cm+2cm = 16cm

6cm
2cm
2cm
6cm

Perimeter:
2cm+2cm+2cm+2cm+2cm+2cm
= 12cm

2cm
2cm
2cm
2cm
2cm
2cm

Perimeter:
6cm+6cm+1.5cm+3cm+3cm+3cm+1.5cm+6cm
= 30cm

6cm
6cm
6cm
3cm
3cm
3cm
1.5cm
1.5cm

Perimeter:
3cm+5cm+6cm+2cm+3cm+2cm =
21cm

3cm
2cm
5cm
3cm
2cm
6cm
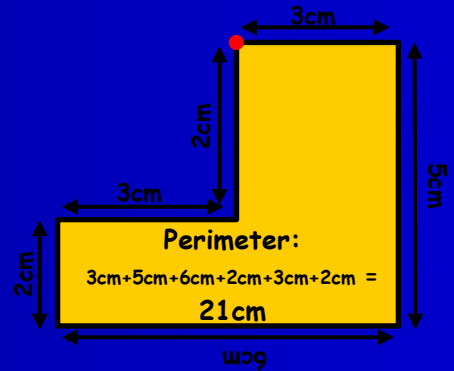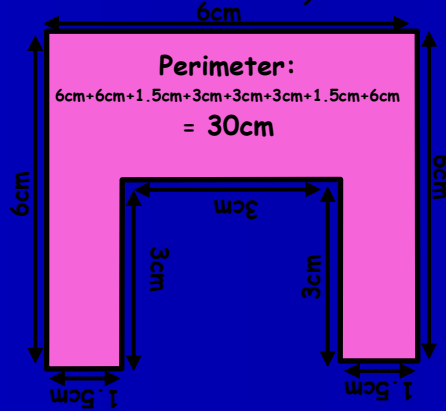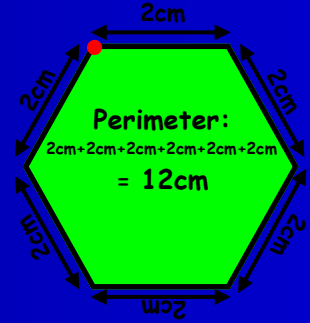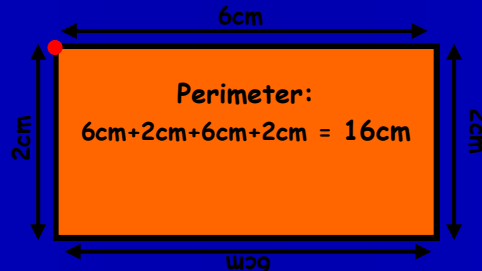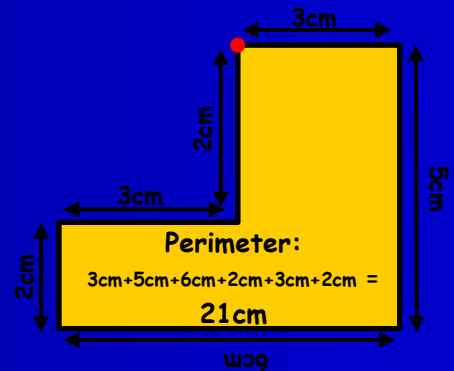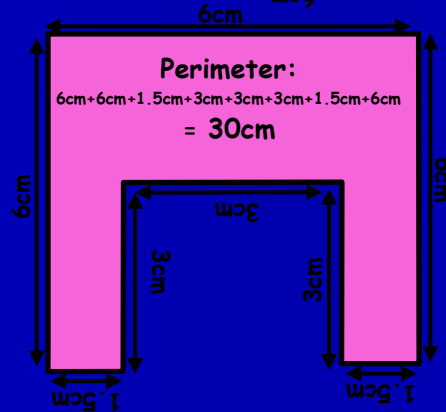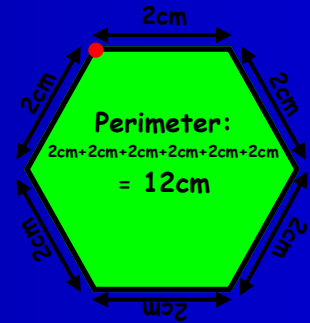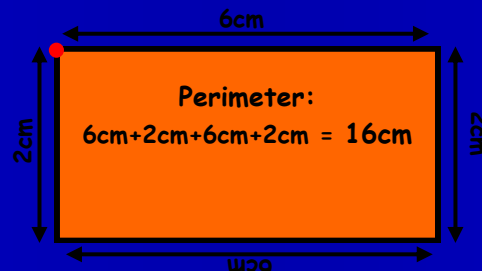
19 got his/her NINETEENTH certificate!!!

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Area Award

The area is the space covered by a 2D shape. Depending on the shape there are different ways to work it out. For rectangles, times the width by the height. For triangles do the same, but half the final answer.

Volume is the space used by a 3D shape.

6cm

3cm

Area:
6cm × 3cm= 18cm^2

7cm

Area:
½ × 4cm × 7cm= 14cm^2

4cm

3cm

Volume:
6cm × 3cm × 2cm= 36cm^3

2cm

6cm

2cm

Area:
2cm×5cm = 10cm^2

5cm

3cm

2cm
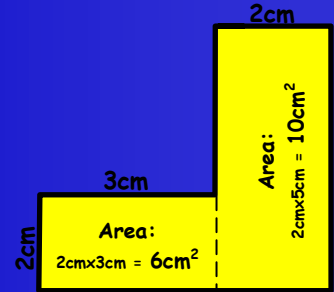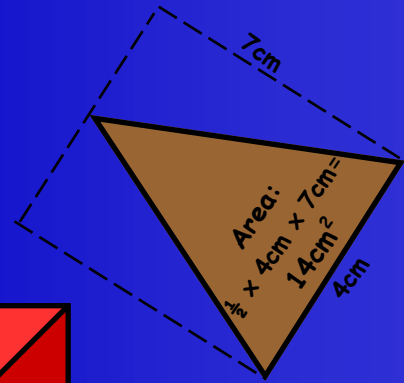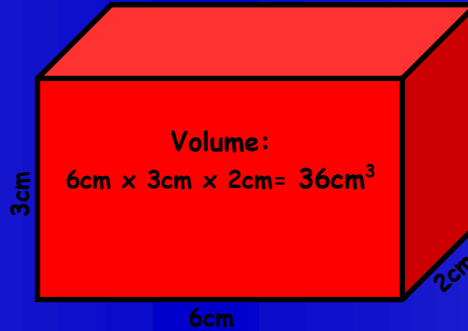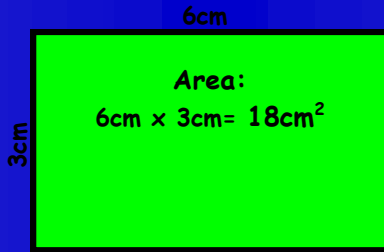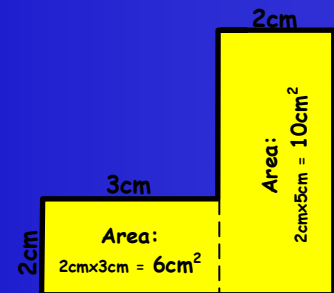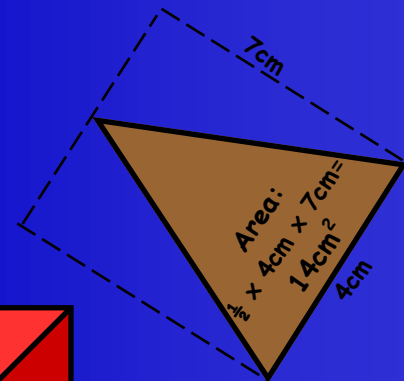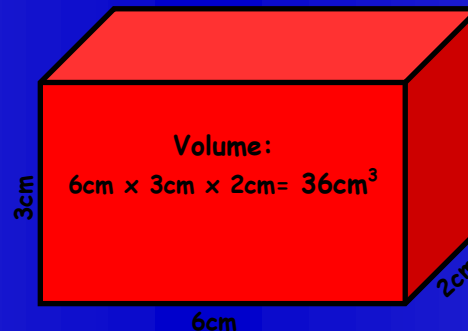
Area:
2cm×3cm = 6cm^2

Total Area:
6cm^2 + 10cm^2= 16cm^2

20 got his/her TWENTIETH certificate!!!

Name	Regular	Irregular	Right Angle	Acute	Other Angle	Parallel	Symmetry	Triangle	Quadrilateral	Pentagon	Octagon	3D	Nets	Cuboids	Prism	Pyramid	Sphere	Cylinder	Perimeter	Area