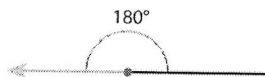
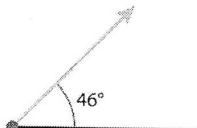
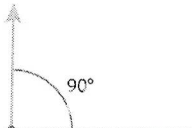
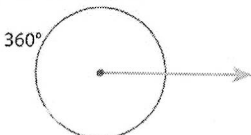
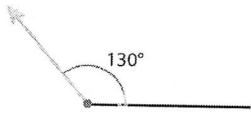
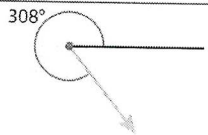


Geometric shapes

Angles

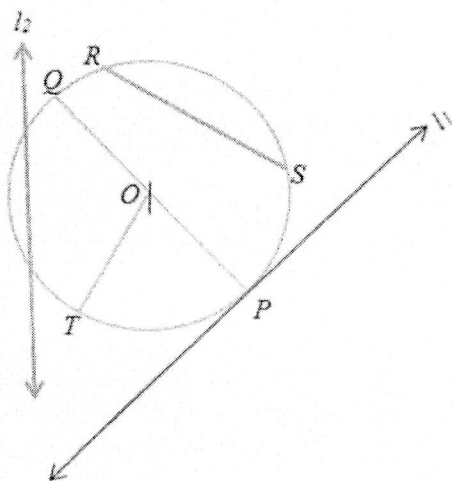
Straight Angle  An Angle that is exactly 180°	Acute Angle  An Angle that is less than 90°	Right Angle  An Angle that is exactly 90°
Full Angle  An Angle that is exactly 360°	Obtuse Angle  An Angle that is greater than 90° and less than 180°	Reflex Angle  An Angle that is greater than 180° and less than 360°

alamy

Image ID: 2RBWWA2
www.alamy.com

Circles

A **circle** is a closed 2-dimensional figure. It is the set of all points in a plane that are the same distance from a fixed point called the **center**. It is not a polygon.



Key elements – based on the picture:

- **Center of the circle:** the midpoint – point O (Slovak: stred kružnice/kruhu)
- **Radius (r):** distance from center to any point on the circle – segment OT (Slovak: polomer)
- **Diameter (d):** twice the radius, ($d = 2r$) – segment PQ (Slovak: priemer)
- **Circumference:** the perimeter of the circle (Slovak: obvod)

- **Chord:** a segment connecting two points on the circle – segment RS (Slovak: tetiva)
- **Arc:** a portion of the circumference
- **Sector:** a region specified by an arc and two radii - “a pizza slice” region between two radii - region OTP
- **Tangent:** a straight line that externally touches a circle, the circle’s outer line - Line 1
- **Area of a circle:** the region bounded by the outer line of a circle (Slovak: obsah)

Triangles

A **triangle** is a closed 2-dimensional figure. It is a polygon with three sides and three vertices - the simplest possible polygon.

◆ Triangle Types

English	Slovak
Equilateral triangle	Rovnostranný trojuholník
Isosceles triangle	Rovnoramenný trojuholník
Scalene triangle	Rôznostranný trojuholník
Right triangle	Pravouhlý trojuholník

▲ Right Triangle

- Has **one 90° angle** (a right angle).
- The side opposite the right angle is the **hypotenuse**, the longest side.

▲ Equilateral Triangle

- **All three sides are equal** in length.
- **All angles are 60°.**

▲ Isosceles Triangle

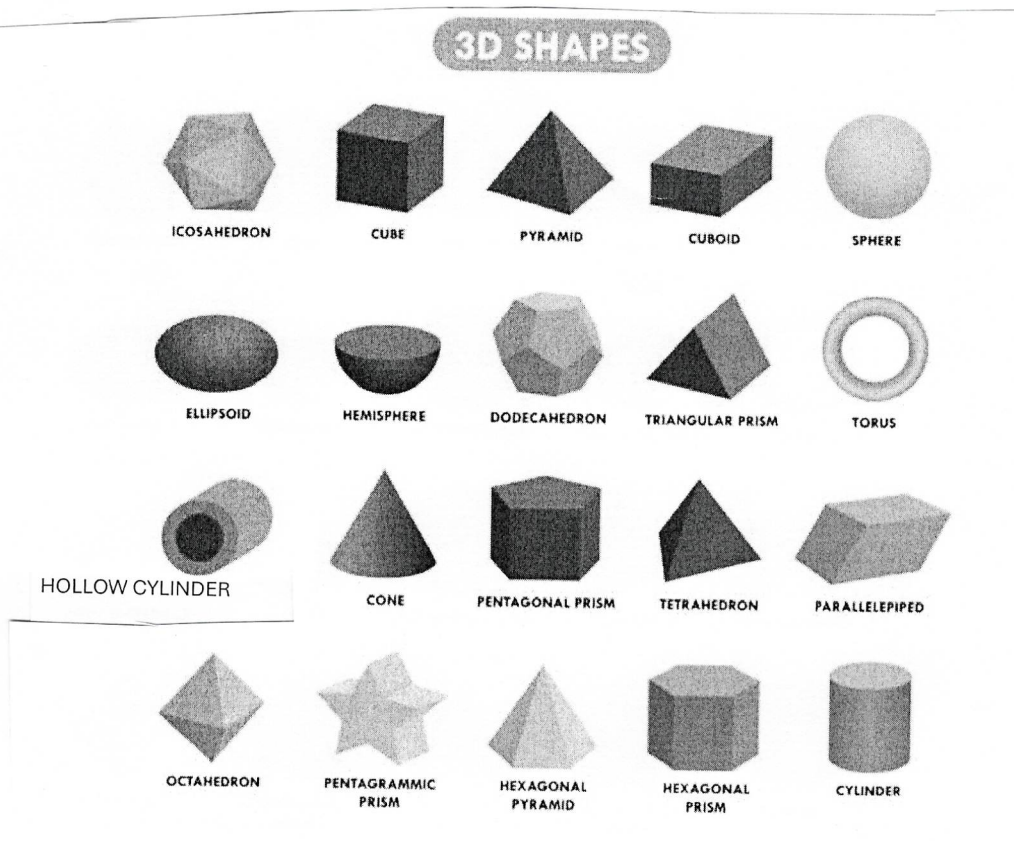
- Has **two equal sides**.
- The angles opposite those sides are also equal.
- Imagine a triangle that looks balanced or “even” on both sides.

▲ Scalene Triangle

- **All sides are different lengths.**
- **All angles are different too.**
- No symmetry — it looks the most irregular.

Solid shapes

A **polyhedron** is a **3-dimensional figure** with flat polygonal faces (surfaces), straight edges and sharp corners, e.g. a *cube*, *pyramid*, *prism*). Therefore, a cone or cylinder are NOT polyhedrons!



Adjectives connected to geometry

Angular — full of sharp corners or edges

Curved — smoothly bending without angles

Cylindrical — shaped like a cylinder

Spherical — round like a ball

Conical — tapering to a point like a cone

Rectangular — shaped like a rectangle

Triangular — having three sides or angles

Circular — round, forming a circle

Elliptical — oval or elongated circle

Polygonal — made of many straight sides

Symmetrical — balanced on both sides

Radial — arranged around a central point

Linear — made of straight lines

Fractal — repeating patterns at different scales

More vocabulary:

English	Slovak
Perimeter	Obvod
Area	Obsah
Volume	Objem
Parallel lines	Rovnobežky
Perpendicular lines	Kolmice
Intersection	Prienik
Vertex	Vrchol
Edge	Hrana
Face (of a solid)	Stena