

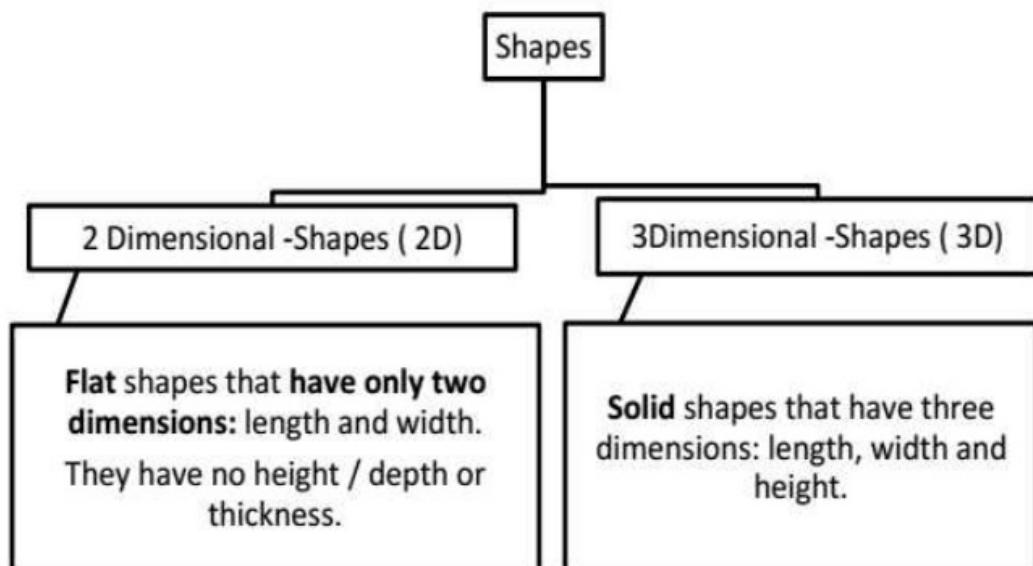
Chapter 5: 2D Shapes - Introduction

Objective(s):

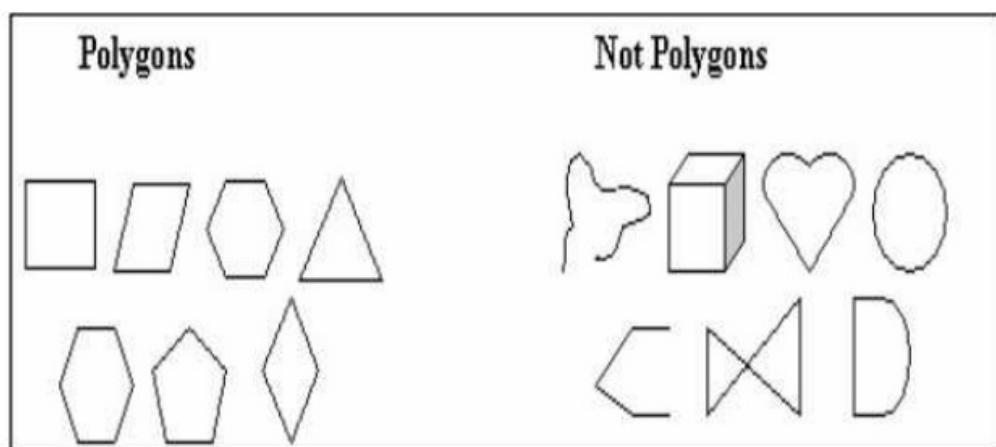
Identify 2D and 3D shapes.

Recognize and name the properties of polygons.

Differ between regular pentagons and irregular pentagons.



* **Polygons** are two-dimensional shapes that have more than two straight sides, are closed, and have only straight lines that never cross.

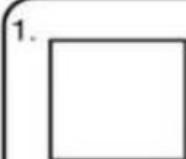


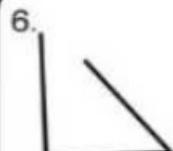
PLEASE REMEMBER

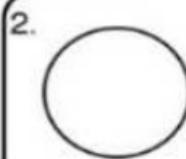
1- Polygons are named according to their number of sides.

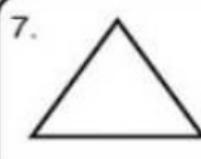
2- All polygons are 2D shapes, but not every 2D shape is a polygon; for example the circle is a 2D shape but it is not a polygon as it only has a curved side.

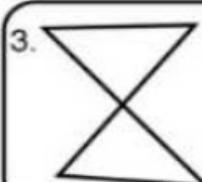
Q1) Label each shape as a **polygon** or **non- polygon**. Write down why the non- polygons do not fit the criteria.

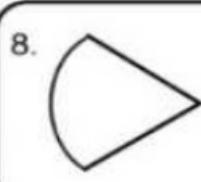


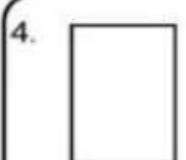


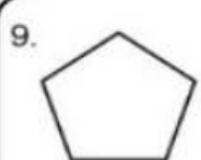


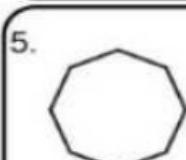


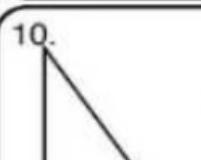


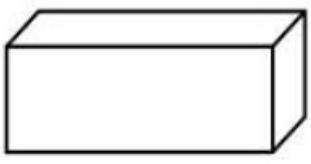
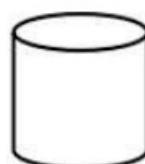
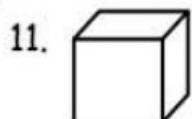




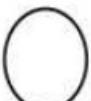
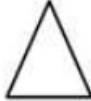
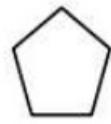
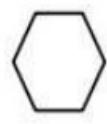
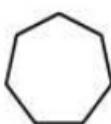


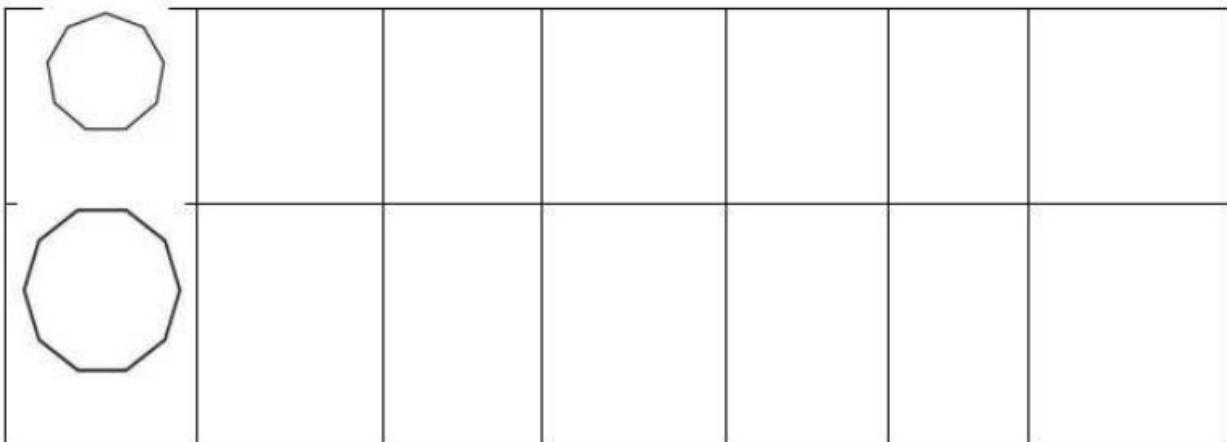






Q2) Complete this table about some 2D shape properties.

2D shape	Total number of sides and angles	Number of straight sides	Number of curved sides	Number of vertices	Name of the shape	Polygon or not- a polygon
						
						
						
						
						
						
						
						

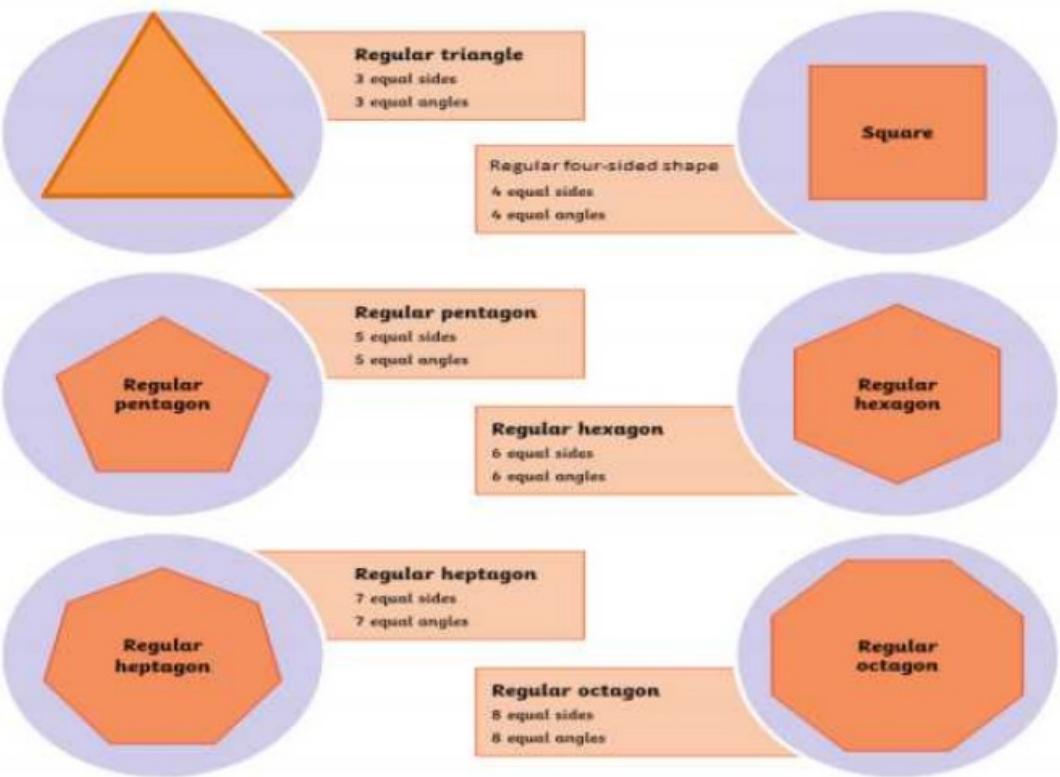


Regular Polygons

A polygon is a shape with **straight sides**.

If all the sides are equal in the length and the angles are equal in size, the shape is **regular**.

Regular shapes have **equal sides and equal angles**.

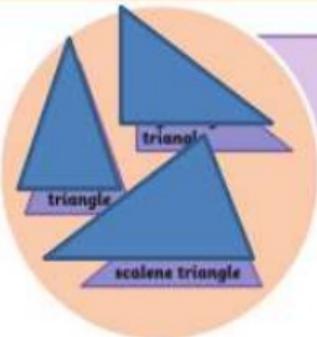


Irregular Polygons

A polygon is a shape with **straight** sides.

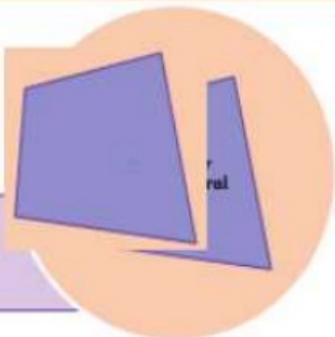
If all of the sides are not equal lengths or all of the angles are not equal sizes, the shape is **irregular**.

Irregular shapes have sides of **different lengths** and angles of **different sizes**.



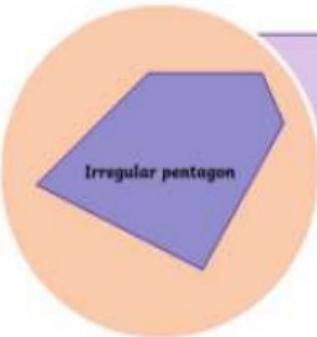
Irregular triangle -

3 sides - with different lengths
3 angles - different sizes



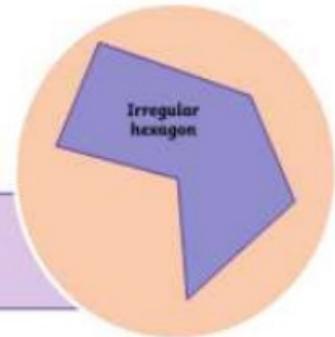
Irregular four-sided shape

4 sides - with different lengths
4 angles - different sizes



Irregular pentagon

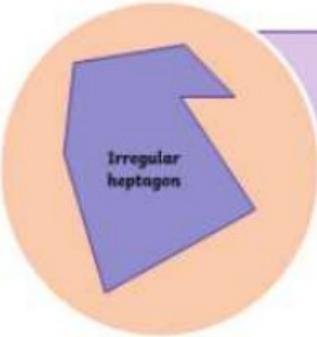
5 sides - with different lengths
5 angles - different sizes



Irregular hexagon

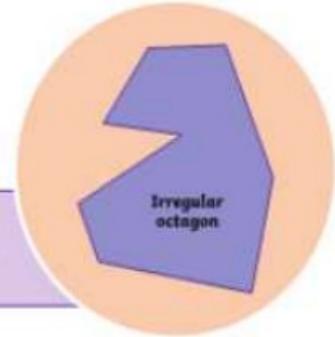
Irregular hexagon

6 sides - with different lengths
6 angles - different sizes



Irregular heptagon

7 sides - with different lengths
7 angles - different sizes



Irregular octagon

Irregular octagon

8 sides - with different lengths
8 angles - different sizes

Q3) Write "regular" or "irregular" next to each polygon and name the shape.





