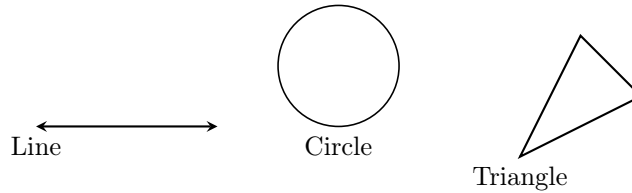


2D SHAPES

A DEFINITIONS

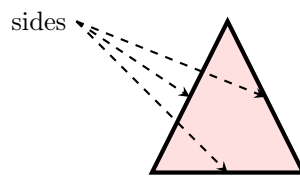
Definition Plane Geometry

Plane Geometry is the study of flat shapes that you see in pictures or on paper. These shapes include lines, circles, triangles, squares, and rectangles. They are called flat because they have only length and width.



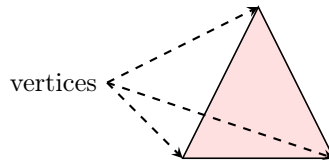
Definition Side

A **side** is a straight line on a shape.



Definition

A **vertex** is a point where two sides meet.



B POLYGONS

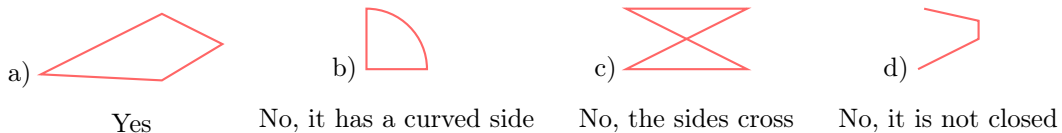
Definition Polygon

A **polygon** is a flat shape that is closed, has only straight sides, and has sides that do not cross each other.

Ex: Look at the shapes below. Decide if each one is a polygon.

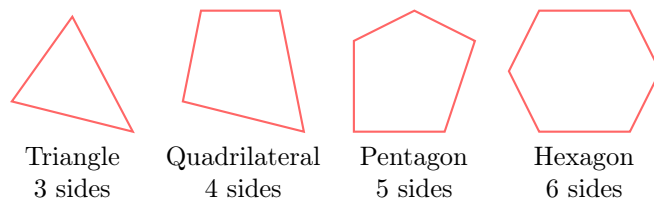


Answer:



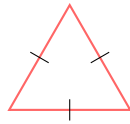
Definition Classification of Polygons

A **polygon** is named by the number of sides it has. Here are some common polygons:

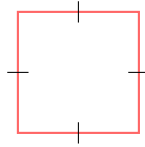


Definition **Regular Polygon**

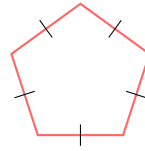
A **regular polygon** has all sides the same length.



Equilateral Triangle



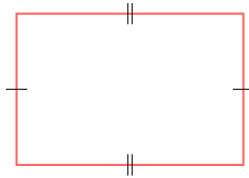
Square



Regular Pentagon

Definition **Rectangle**

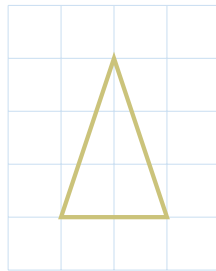
A **rectangle** is a quadrilateral with the opposite sides are equal in length.



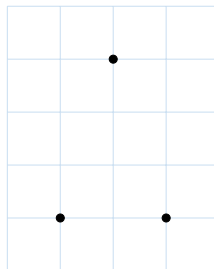
C DRAWING SHAPES ON GRAPH PAPER

Method **Reproducing a Shape on Graph Paper**

To reproduce this shape on graph paper :



1. **Place the vertices:** Choose a starting vertex of the original shape. Count the grid squares to position the other vertices relative to the first one, keeping the same distances and directions as the original shape.



2. **Draw the edges:** Use a ruler to connect the vertices with straight lines in the same order as the original shape.

