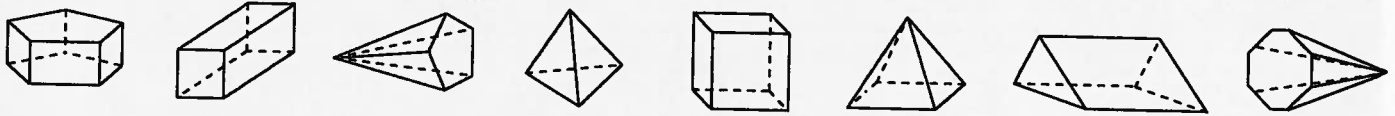A **cone** has one flat surface and one curved surface.
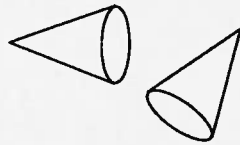
A **cylinder** has two flat surfaces and one curved surface.

---
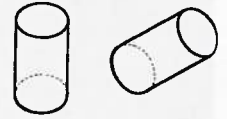
1. Circle all the **pyramids**. Put an "X" through all the **prisms**.

2. Match each shape to its name. The first one has been done for you.

square pyramid   cylinder   triangular prism   cone   rectangular prism   triangular pyramid
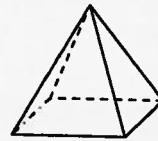
3. Compare the shapes below. Use the chart to find properties that are the __same__ and __different__.
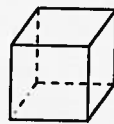
Property	Cube	Square Pyramid	Same?	Different?
Number of faces	6	5		✓
Number of triangular faces				
Number of square faces				
Number of edges				
Number of vertices				

4. a) I have a square base and eight edges. What am I? _____

b) I have a triangular base and six edges. What am I? _____

G3-41: Sorting 3-D Shapes

Eve sorts the following figures using a Venn diagram. She first decides on two properties that a figure might have. Then she makes a chart.
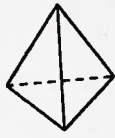
A   **B**   **C**   **D**   **E**

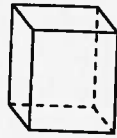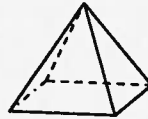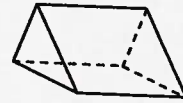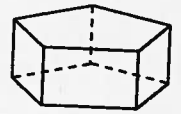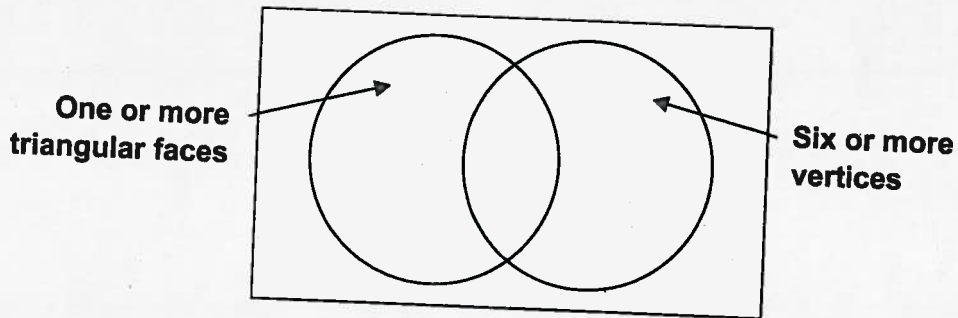| Property	Figures with this property:
1. One or more triangular faces	
2. Six or more vertices	

1. a) Which figures share both properties? _____

   b) Using the information in the chart above, complete the following Venn diagram.

   One or more triangular faces   Six or more vertices

2. Complete both the chart and the Venn diagram below using the shapes A to E.

   a)

Property	Figures with this property:
1. Square base	
2. Pyramid	

   b) Which figures share both properties? _____

   c) Using the information in the chart above, complete the following Venn diagram.

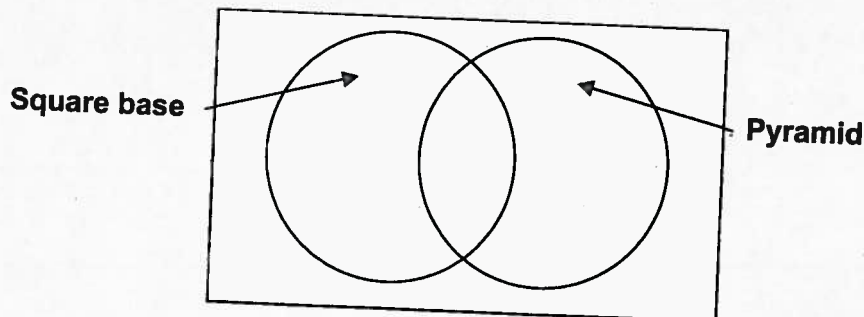   Square base   Pyramid
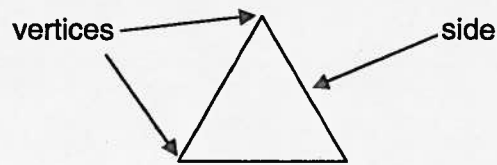
jump math

Geometry 2

G3-1: Sides and Vertices

Shapes, such as triangles and squares, have **sides** (or 'edges') and **vertices** ('corners' where the sides meet).

A flat shape is called a 2-dimensional (or 2-D) shape.

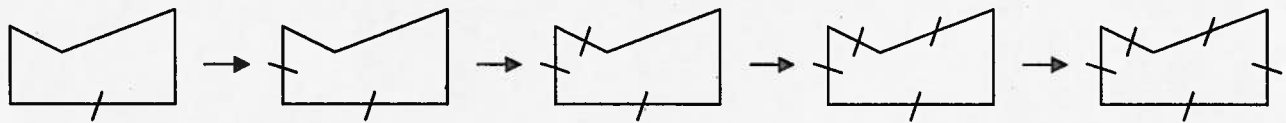A **polygon** is a 2-D shape with sides that are all straight lines.

Example: vertices   side

SIDES

Tim marks the sides of a shape as he counts so he does not miss any sides.
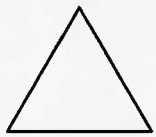
Example:

This shape has **5** sides.

---

1. Use Tim's method to find the number of sides on each shape.
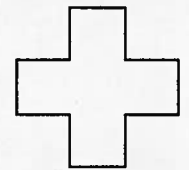
   a) ____ sides   b) ____ sides   c) ____ sides   d) ____ sides

2. Helen names the shapes according to how many sides they have.

   a) triangle   b) quadrilateral   c) pentagon   d) hexagon
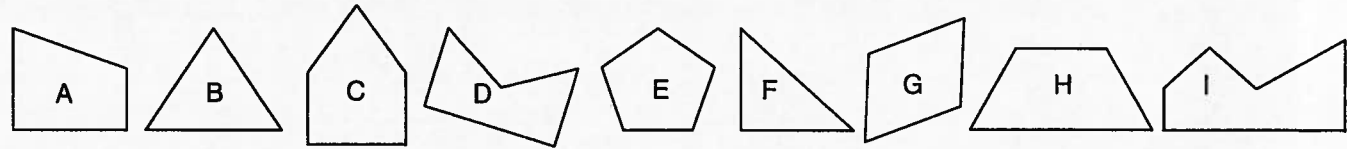
   ____ sides   ____ sides   ____ sides   ____ sides

3. Complete the chart. Find as many shapes as you can for each shape name.

   A   B   C   D   E   F   G   H   I

Shapes	Letters
Triangles	
Quadrilaterals	

Shapes	Letters
Pentagons	
Hexagons	

Geometry 1

The solid shapes in the figure are called **3-D shapes**.

Faces are the flat surfaces of a shape, **edges** are where two faces meet, and **vertices** are the points where 3 or more faces meet.
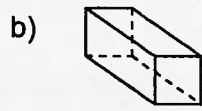
faces

edges

vertices
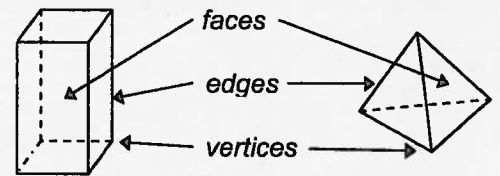
Pyramids have a point at one end. The base of the shape is a polygon; for instance, a triangle, a quadrilateral or a square (like the pyramids in Egypt), a pentagon, etc.

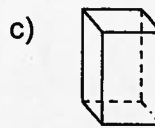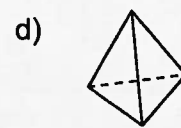**Prisms** do not have a point. Their faces are the same at both ends of the shape.

----

1. Count the faces of each shape.
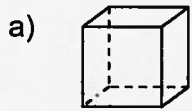
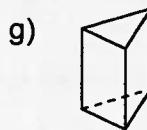a) _____ faces

b) _____ faces

c) _____ faces
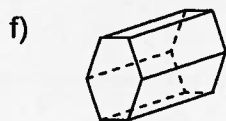
d) _____ faces

e) _____ faces

f) _____ faces

g) _____ faces

h) _____ faces

2. Using a set of 3-D shapes and the chart below as reference, answer the following questions.

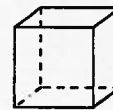| A	B	C	D	E
Square Pyramid	Triangular Pyramid	Rectangular Prism	Cube	Triangular Prism

a) Describe each shape in terms of number of faces, vertices and edges. The first one has been done.

	A	B	C	D	E
Number of Faces	5				
Number of Vertices	5				
Number of Edges	8				

b) Did any shapes have the same number of faces / vertices / edges? If so, which shapes share which properties?

jump math

Geometry 2