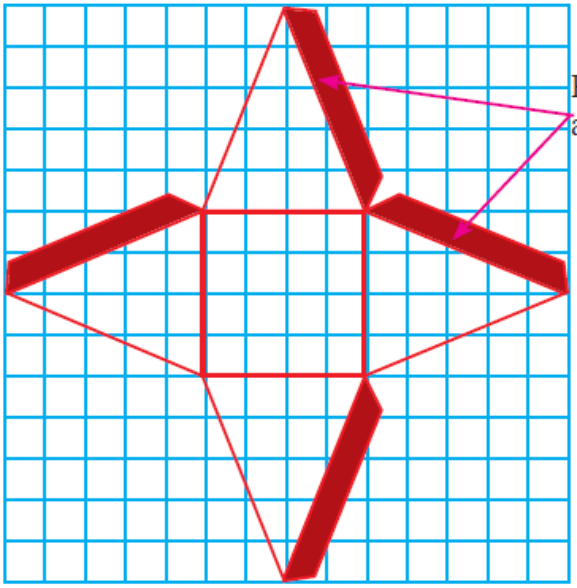
Unit 25 – Solids (1)

➢ Square Pyramid

- A solid object with a square base and four equal triangular faces is called a **square pyramid**.

Activity 1

Step 1- Draw the given figure on a square ruled paper. Cut out the figure that you drew and either copy it or paste it on a thick piece of paper such as a Bristol board.



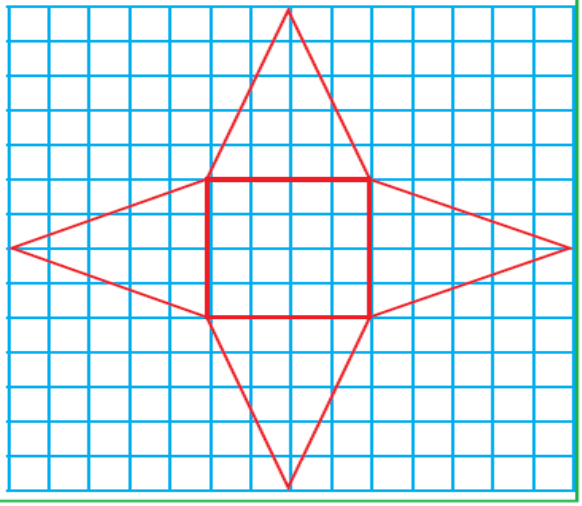
Step 2 - Cut out the figure drawn or pasted on the Bristol board and prepare a model of a square pyramid by folding along the edges and pasting along the pasting allowances.

Step 3 - Based on the model you prepared, find the number of faces, edges and vertices of a square pyramid. Examine the specific features of the model.

Step 4 - Write down the specific features you identified in your exercise book.

Step 5 - Measure and write down the lengths of the edges of the model.

The figure you obtain by removing the pasting allowances of the above figure which was used to prepare a model of a square pyramid, is called the "**net of the square pyramid**".

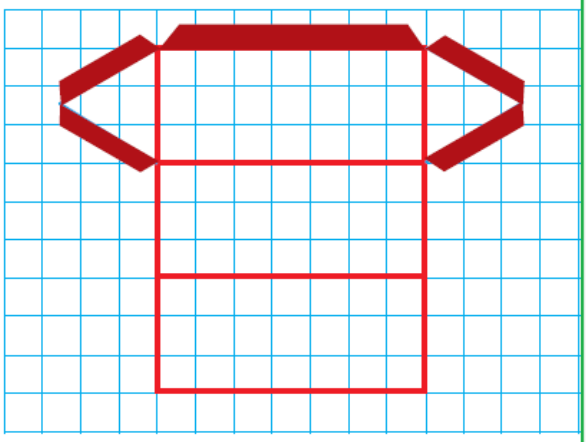


➢ Triangular Prism

- A solid object which has 3 rectangular plane faces and two triangular faces is called a "**triangular prism**".

Activity 3

Step 1 - Draw the given figure on a square ruled paper. Cut out the figure that you drew and either copy it or paste it on a thick piece of paper such as a Bristol board.

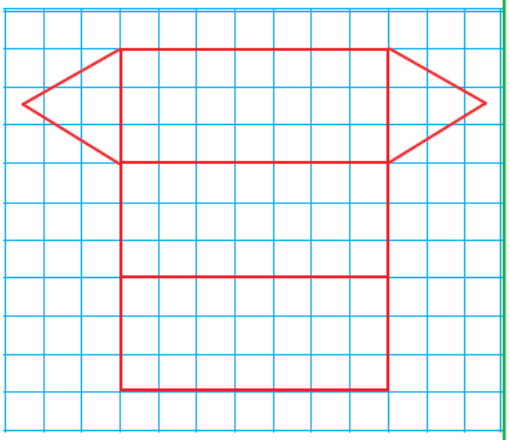


Step 2 - Cut out the figure drawn or pasted on the Bristol board and prepare a model of a triangular prism by folding along the edges and pasting along the pasting allowances.

Step 3 - Based on the model you prepared, find the number of faces, edges and vertices of a triangular prism. Examine other specific features of the model.

Step 4 - Write down the specific features you identified in your exercise book.

The figure you obtain by removing the pasting allowances of the above figure which was used to prepare a model of a triangular prism, is called the "**net of the triangular prism**".



➢ Euler's Relationship

Number of Vertices	+	Number of Faces	=	Number of Edges	+	2
V	+	F	=	E	+	2

The above relationship which is true for solids with plane faces only, was first presented in the 18th century by a Swiss mathematician called "Leonhard Euler" who lived in Switzerland. Therefore this relationship was later called Euler's formula.

➢ **Do all the exercises in your text book 25.1 and 25.2**