Visualise 3-D objects and make nets of common solids

1. Look at some different **prisms**.

Count the number of edges on the ends, the number of faces, the number of edges altogether and the number of vertices.

Fill in the table:

Name	Edges on end	Faces	Edges	Vertices
Triangular prism				
Cuboid				
Pentagonal prism				
Hexagonal prism				
Octagonal prism				

What do you notice about the number of faces compared to the number of edges on the ends?

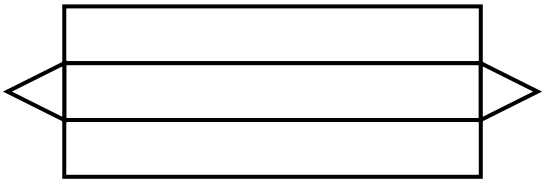
What do you notice about the number of edges altogether compared to the number of edges on the ends?

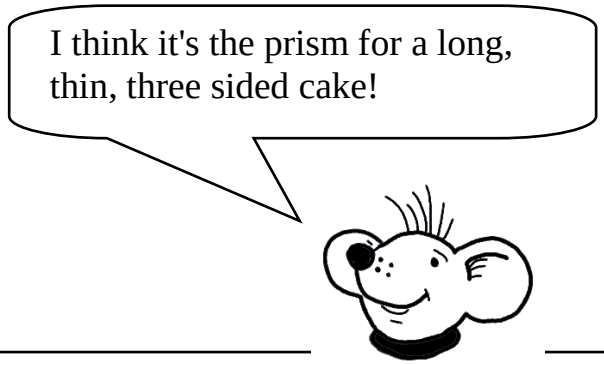
What do you notice about the number of vertices compared to the number of edges on the ends?

What happens if you add the number of faces and the number of vertices together for each shape?

Are any of the columns of number in the times tables?

2. Which prism is this the net for?





4502-03 Visualise 3-D objects and make nets of common solids Answers

1.

Name	Edges on end	Faces	Edges	Vertices
Triangular Prism	3	5	9	6
Cuboid	4	6	12	8
Pentagonal Prism	5	7	15	10
Hexagonal Prism	6	8	18	12
Octagonal prism	8	10	24	16

On a prism the number of faces is two more than the number of edges on the end.

On a prism the number of edges altogether is three times the number of edges on the ends.

On a prism the number of vertices altogether is twice times the number of edges on the ends.

If you add the number of faces and the number of vertices for each shape it is two more than the number of edges.

2. This is the net for a triangular prism.