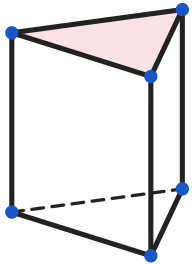
Faces, edges and vertices

ANSWERS

1

How many faces, edges and vertices does this triangular prism have?



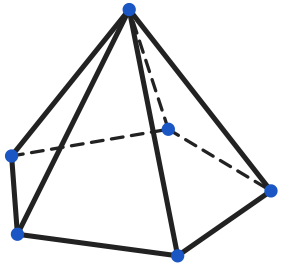
Faces: 2 + 3 = 5

Edges: 3 + 3 + 3 = 9

Vertices: 3 + 3 = 6

2

How many faces, edges and vertices does this pentagonal based pyramid have?



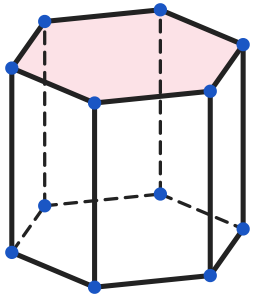
Faces: 1 + 5 = 6

Edges: 5 + 5 = 10

Vertices: 5 + 1 = 6

3

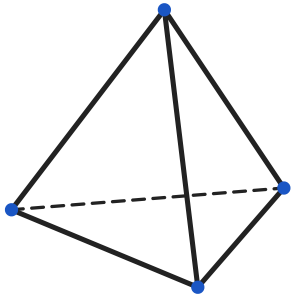
How many faces, edges and vertices does this hexagonal prism have?



8 faces | 18 edges | 12 vertices

4

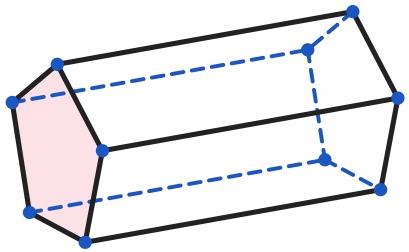
How many faces, edges and vertices does this triangular based pyramid have?



4 faces | 6 edges | 4 vertices

5

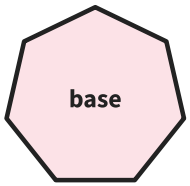
This pentagonal prism is lying on its side.
Its hidden edges are not drawn.
How many faces, edges and vertices does it have?



7 faces | 15 edges | 10 vertices

6

There is no drawing.
How many faces, edges and vertices does a heptagonal based pyramid have?
A heptagon has 7 sides.



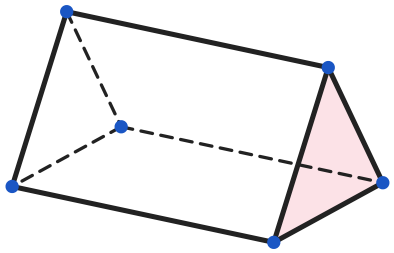
Faces: 1 + 7 = 8

Edges: 7 + 7 = 14

Vertices: 7 + 1 = 8

7

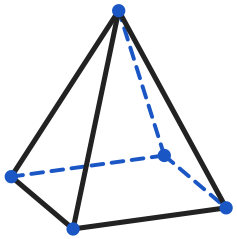
Ines paints each face of this wooden block a different colour. The block is a triangular prism. How many colours does she need?



Answer: 5 colours

8

Ola says this square based pyramid has 5 edges. Explain her mistake.
How many edges does it have?



She only counted the edges she can see.

4 round the base + 4 up to the point

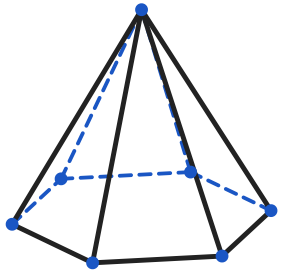
Answer: 8 edges

Faces, edges and vertices *further practice*

ANSWERS

9

This hexagonal based pyramid is drawn without its hidden edges.
How many faces, edges and vertices does it have?



7	12	7
faces	edges	vertices

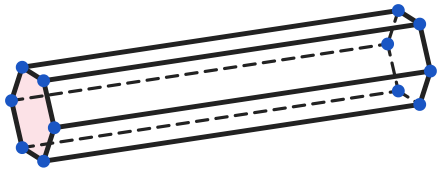
10

Complete the table.

Prism	Faces	Edges	Vertices
triangular prism	5	9	6
cuboid	6	12	8
pentagonal prism	7	15	10
hexagonal prism	8	18	12

11

A new pencil, before it is sharpened, is a hexagonal prism. How many faces and how many edges does it have?

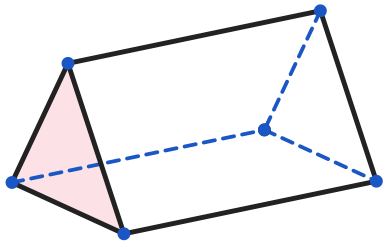


Faces 8

Edges 18

12

The hidden edges of this triangular prism are missing. The dot is its hidden vertex. Draw the hidden edges with dashed lines. How many are there?



Answer 3 hidden edges

13

Mo makes 3 square based pyramids. Each edge is a straw and each vertex is a ball of clay. How many (a) straws, (b) balls of clay does he need?

one pyramid: 8 edges, 5 vertices

(a) 24 straws

(b) 15 balls

14

A pyramid has 10 edges. What shape is its base? Name the pyramid.

5 round the base + 5 up = 10

so the base has 5 sides

Answer pentagonal based pyramid

15

Which has more vertices, a hexagonal prism or an octagonal based pyramid? How many more?

hexagonal prism: 6 + 6 = 12

octagonal based pyramid: 8 + 1 = 9

Answer the prism, 3 more

16

Leah says, "A shape with 5 faces must be a square based pyramid."
Is she right? Explain.

No. A triangular prism also has

5 faces: 2 ends + 3 sides.

Answer No