

## Revise

## Compare and classify 3D shapes and their nets

3D shapes have three dimensions – length, width and depth.

3D shapes can be compared and classified according to the properties of their faces, edges and vertices.

A polyhedron is a 3D shape with flat faces.

Spheres, cylinders and cones are not polyhedrons as they have curved surfaces.



### **Cube**

6 square faces  
12 edges  
8 vertices



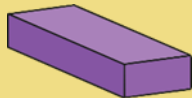
### **Tetrahedron**

4 triangular faces  
6 edges  
4 vertices



### **Sphere**

1 curved surface  
0 edges  
0 vertices



### **Cuboid**

6 faces  
12 edges  
8 vertices



### **Octahedron**

8 faces  
12 edges  
6 vertices



### **Cone**

1 circular face  
1 curved surface  
1 curved edge  
0 vertices (1 apex)



### **Square-based pyramid**

5 faces  
8 edges  
5 vertices



### **Triangular prism**

5 faces  
9 edges  
6 vertices



### **Cylinder**

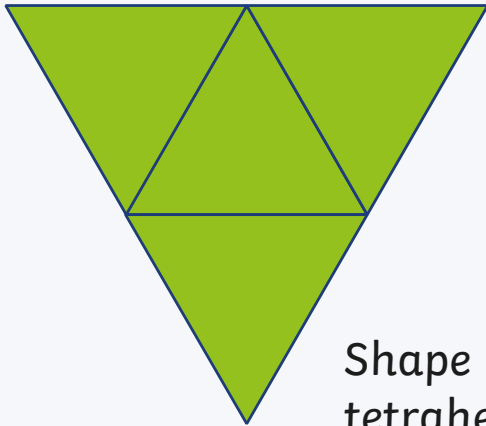
2 circular faces  
1 curved surface  
2 curved edges  
0 vertices

## Revise

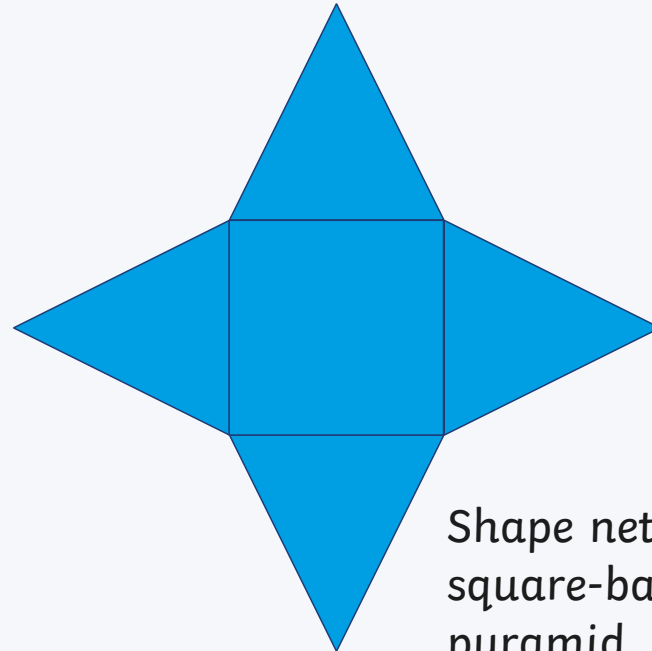
## Compare and classify 3D shapes and their nets

A shape net shows which 2D shapes can be folded and joined to make a 3D shape.

When you are drawing a net, or solving a problem involving a shape net, think carefully about where the edges of the faces meet.



Shape net of a tetrahedron

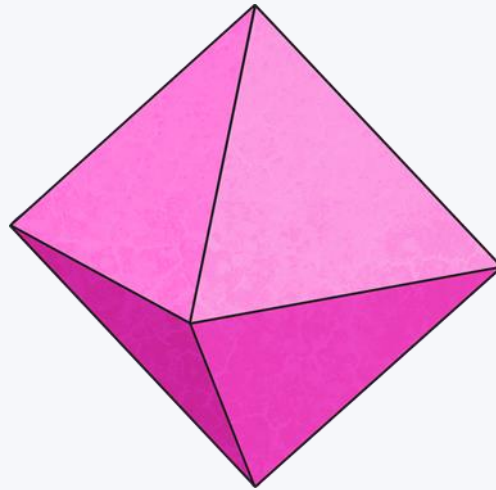


Shape net of a square-based pyramid

## Quiz

## Compare and classify 3D shapes and their nets

What is the name of this 3D shape?



Octahedron

Tetrahedron

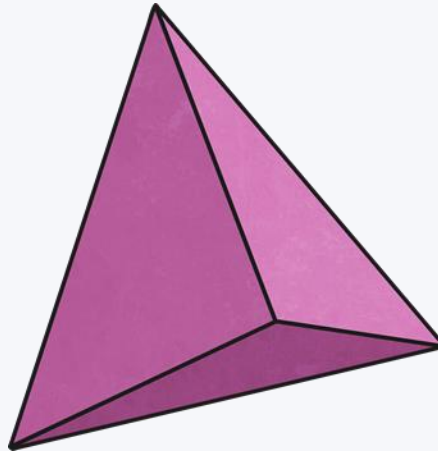
Pyramid

~~Correct!~~  
Correct!

## Quiz

## Compare and classify 3D shapes and their nets

What is the name of this 3D shape?



Octahedron

Tetrahedron

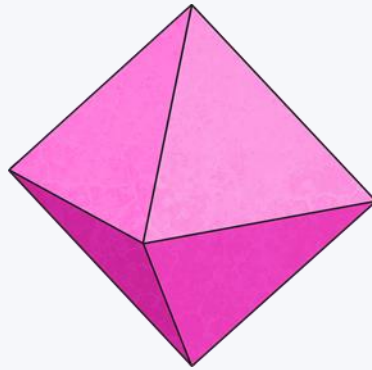
Square-based pyramid

Correct!  
Congratulations!

## Quiz

## Compare and classify 3D shapes and their nets

How many more faces are on an octahedron than a triangular prism?



4

3

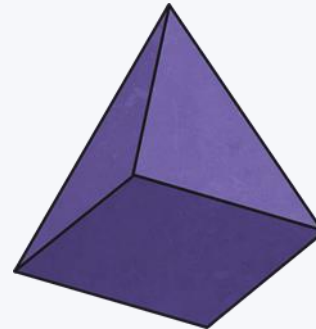
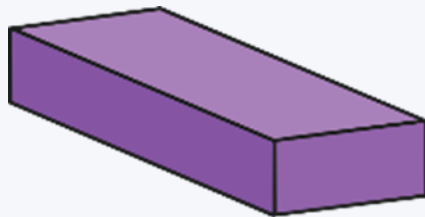
2

Correct!  
To reach!

## Quiz

## Compare and classify 3D shapes and their nets

How many fewer edges are on a square-based pyramid than a cuboid?



4

3

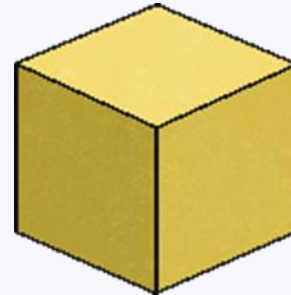
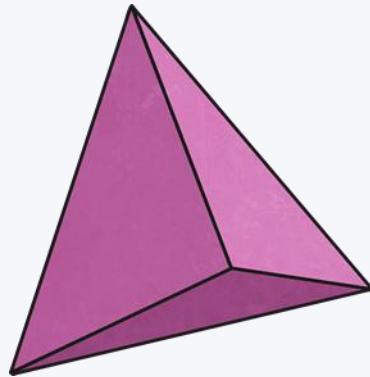
2

Try again!

## Quiz

## Compare and classify 3D shapes and their nets

How many vertices are there altogether on a tetrahedron and a cube?



8

10

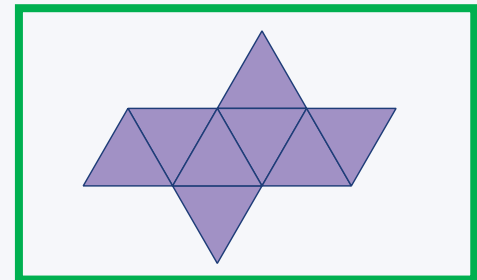
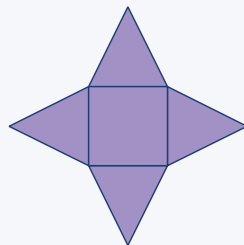
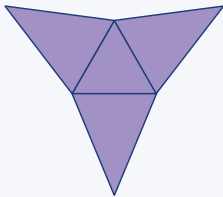
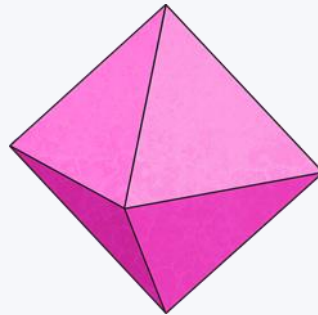
12

Correct!  
To go with!

## Quiz

## Compare and classify 3D shapes and their nets

Which of these shape nets will fold up to make this octahedron?



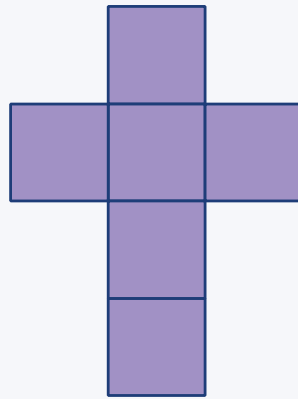
~~The correct~~  
The correct!



## Quiz

## Compare and classify 3D shapes and their nets

Which 3D shape will this shape net make?



Cuboid

Cube

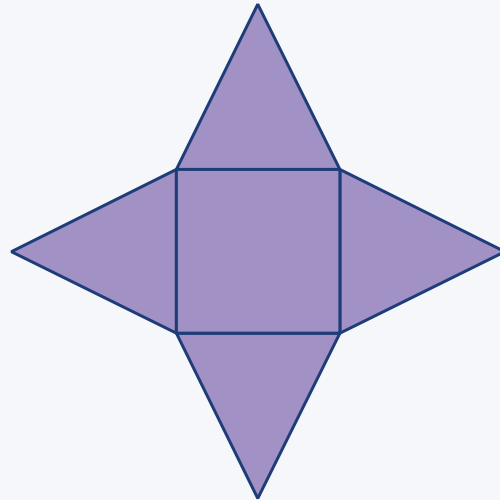
Sphere

Correct!  
Congratulations!

## Quiz

## Compare and classify 3D shapes and their nets

Which 3D shape will this shape net make?



Triangular Prism

Tetrahedron

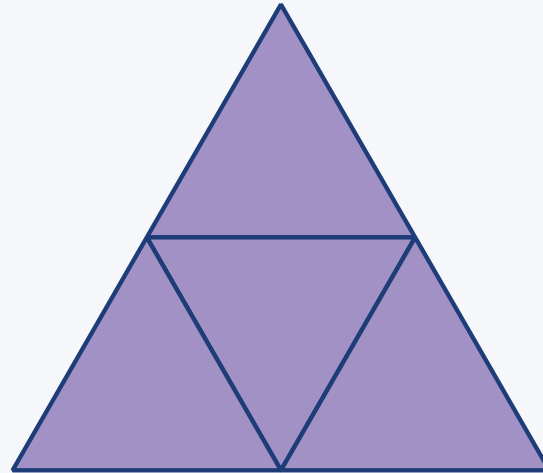
Square-based pyramid

~~Correct!~~  
Correct!

## Quiz

## Compare and classify 3D shapes and their nets

Which 3D shape will this shape net make?



Triangular Prism

Tetrahedron

Square-based pyramid

Choose another objective

Correct!  
To go back!