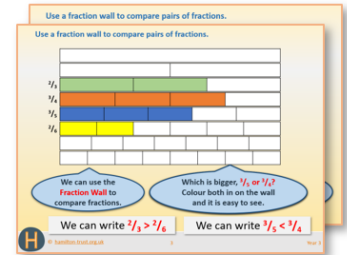


# Week 14, Day 3

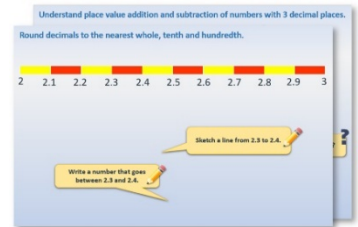
## 3-D shapes (1)

Each day covers one maths topic. It should take you about 1 hour or just a little more.

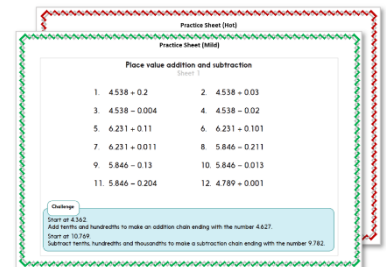
1. If possible, watch the **PowerPoint presentation** with a teacher or another grown-up.



OR start by carefully reading through the **Learning Reminders**.



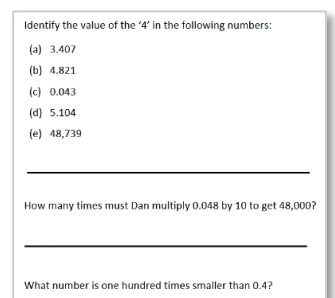
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**

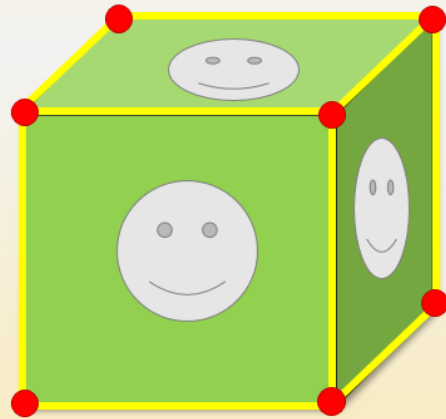


4. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



## Learning Reminders

Describe, name and sort 3-D shapes.



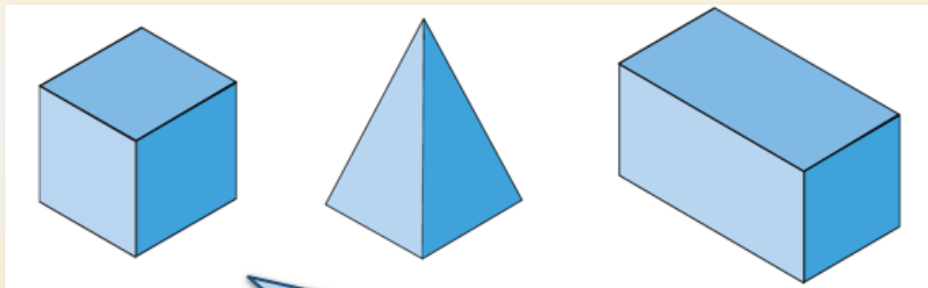
How many **edges**,  
**vertices** and **faces** does  
this cube have?

12 **edges**

8 **vertices**

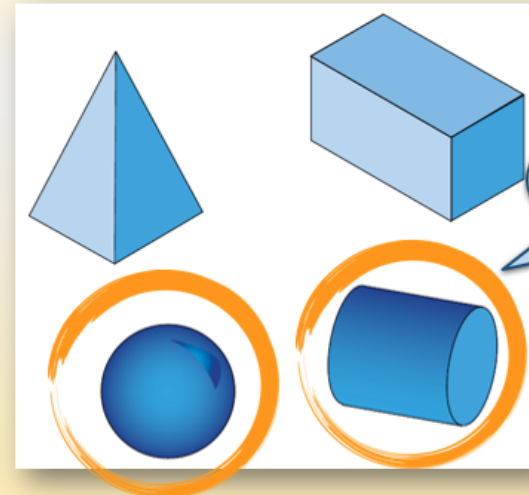
6 **faces**

Describe, name and sort 3-D shapes.



A **polyhedron** is a solid  
shape with all flat faces.  
It doesn't have any  
curved faces.

Describe, name and sort 3-D shapes.



Which of these  
shapes are **not**  
polyhedrons?

## Learning Reminders

Describe, name and sort 3-D shapes.

It is not a polyhedron.



There is a 3-D shape in this bag.  
Read each clue...  
What do you think it might be?  
What can't it be?

It has 3 faces,  
no vertices, and  
2 edges.

2 faces are circles.



## Learning Reminders

Describe, name and sort 3-D shapes.

There is a 3-D shape in this bag. What do you think it might be? What can't it be?



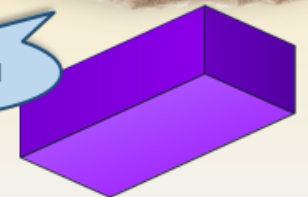
It is a polyhedron.

It has 6 faces, 8 vertices, and 12 edges.

4 faces are not squares.



It is a cuboid!



## Learning Reminders

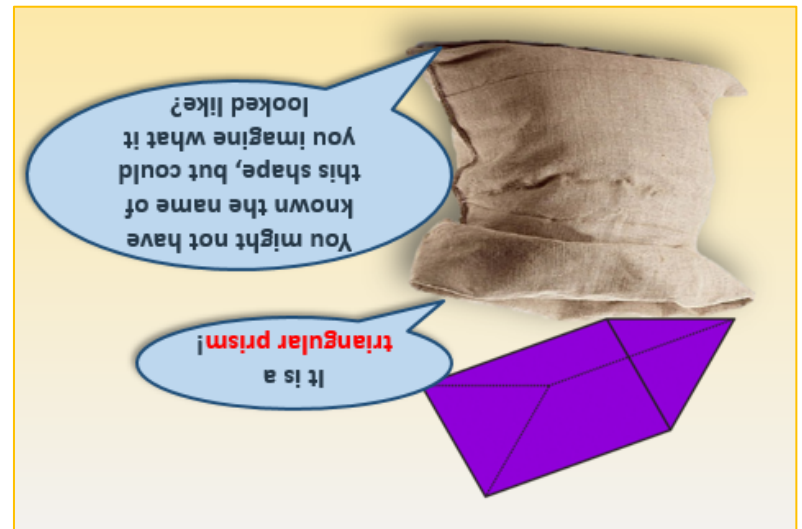
Describe, name and sort 3-D shapes.

There is a 3-D shape in this bag. What do you think it might be? What can't it be?

It is a polyhedron.

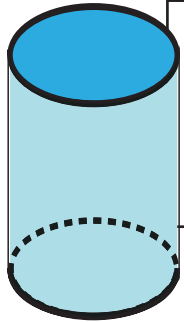
It has 5 faces, 6 vertices, and 9 edges.

3 faces are rectangles and 2 faces are triangles.



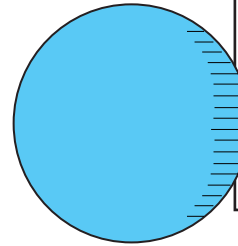
# Practice Sheet for All Describing 3-D shapes

Name the shapes and describe their faces.



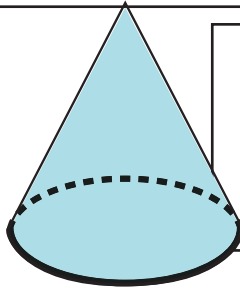
Name:

Faces:



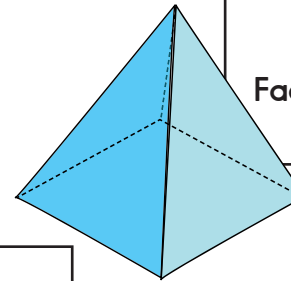
Name:

Faces:



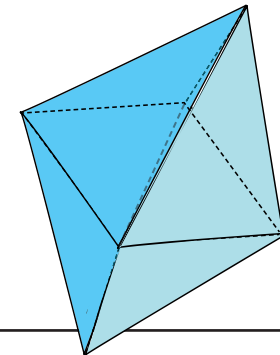
Name:

Faces:



Name:

Faces:

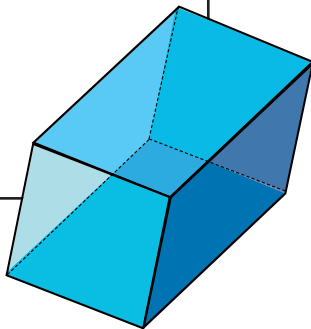


Name:

Faces:

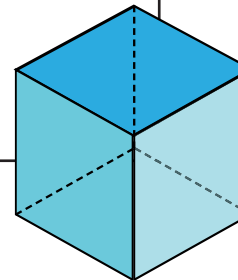
Name:

Faces:



Name:

Faces:

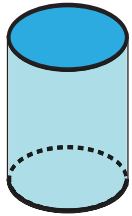


## Challenge

Write the number of vertices by each shape.

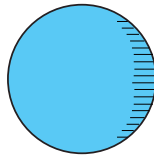
# Practice Sheet Answers

## Describing 3-D shapes



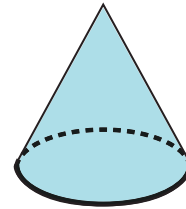
Name: **Cylinder**

Faces: **3**  
**2 circles**  
**1 curved**



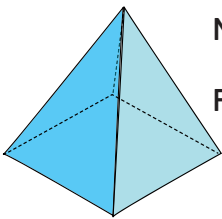
Name: **Sphere**

Faces: **1**  
**1 curved**



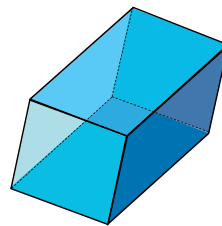
Name: **Cone**

Faces: **2**  
**1 curved**  
**1 circle**



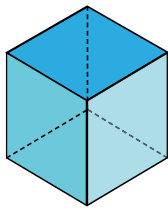
Name: **Square-based pyramid**

Faces: **5**  
**1 square**  
**4 triangles**



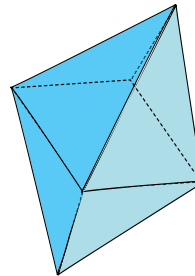
Name: **Cuboid**

Faces: **6**  
**2 square**  
**4 oblongs**



Name: **Cube**

Faces: **6**  
**6 squares**



Name: **Octahedron**

Faces: **8**  
**8 triangles**

### Challenge

Write the number of vertices by each shape.

Cylinder **0**

Sphere **0**

Cone **1**

Square-based pyramid **5**

Cuboid **8**

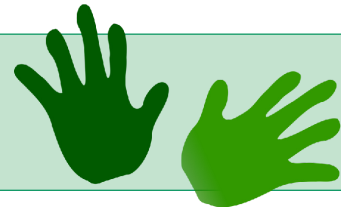
Cube **8**

Octahedron **6**

## A Bit Stuck? Shape making

### Things you will need:

- Scissors
- Sticky tape

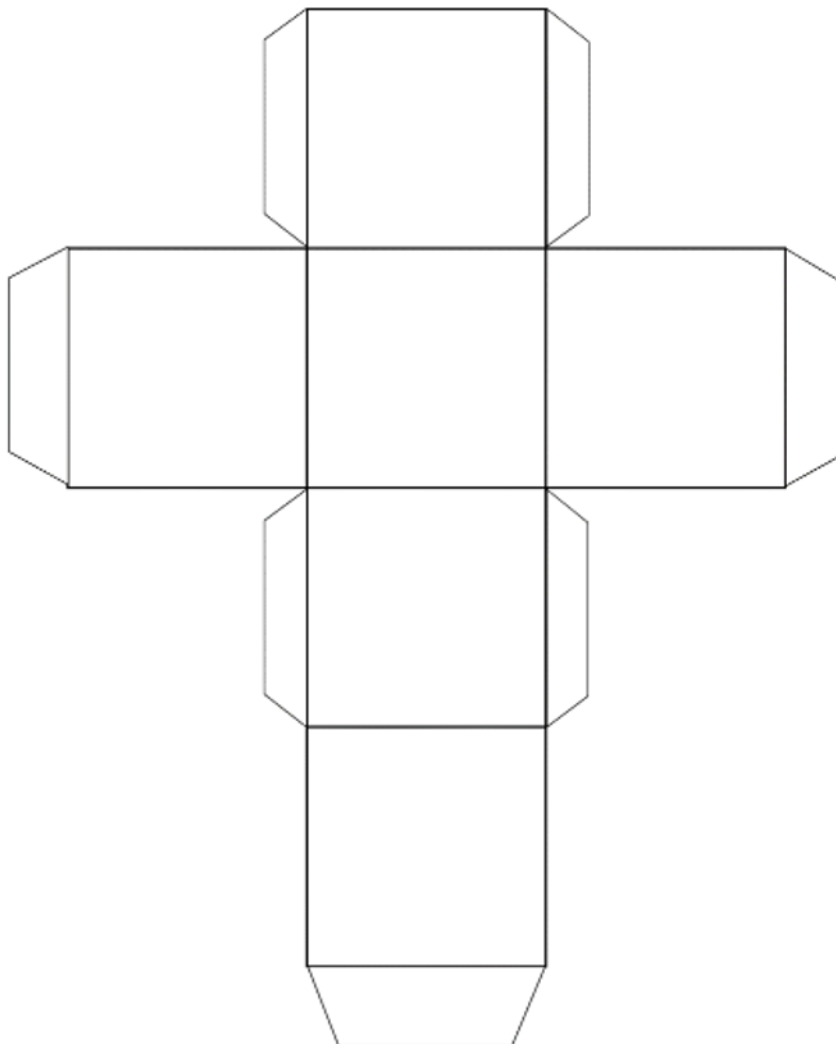


### What to do:

For this activity you will need a print-out of some of the nets, scissors and tape.

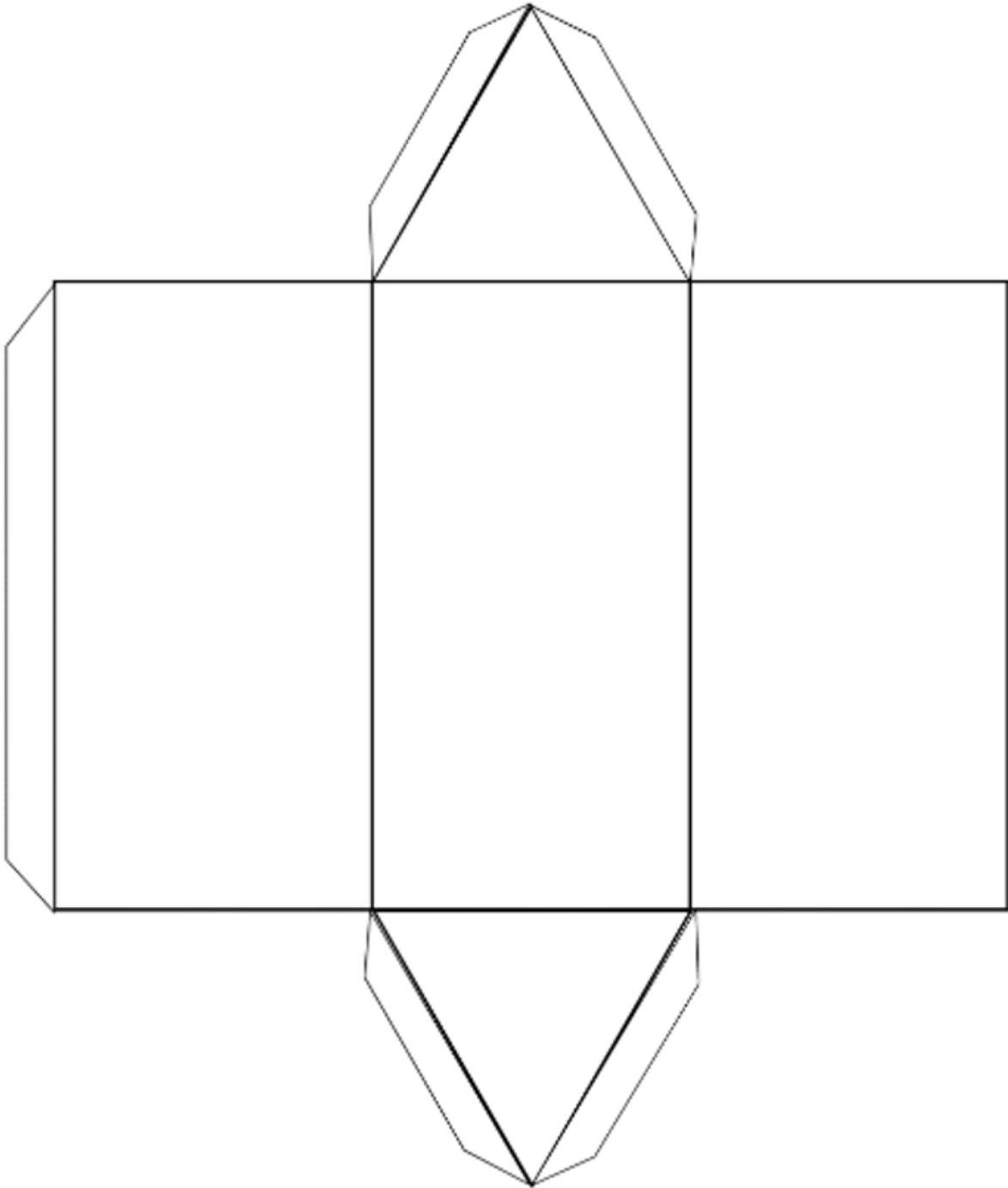
- Choose several of the nets to make into 3-D shapes.
- Can you name each shape? Describe it to an adult.

If you enjoy this, you can find some amazing nets at <https://www.polyhedra.net/en/model.php?nameen-octahedron>

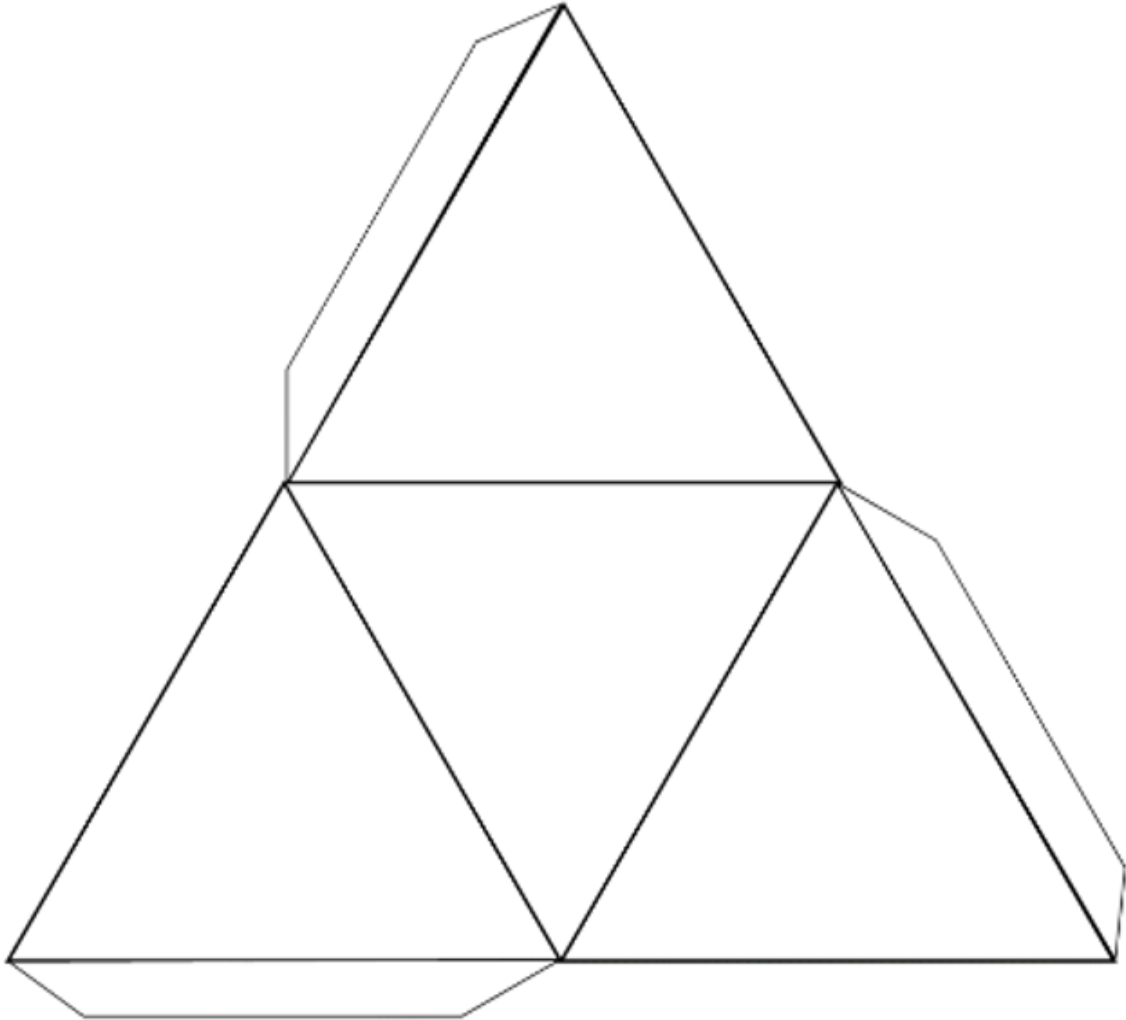




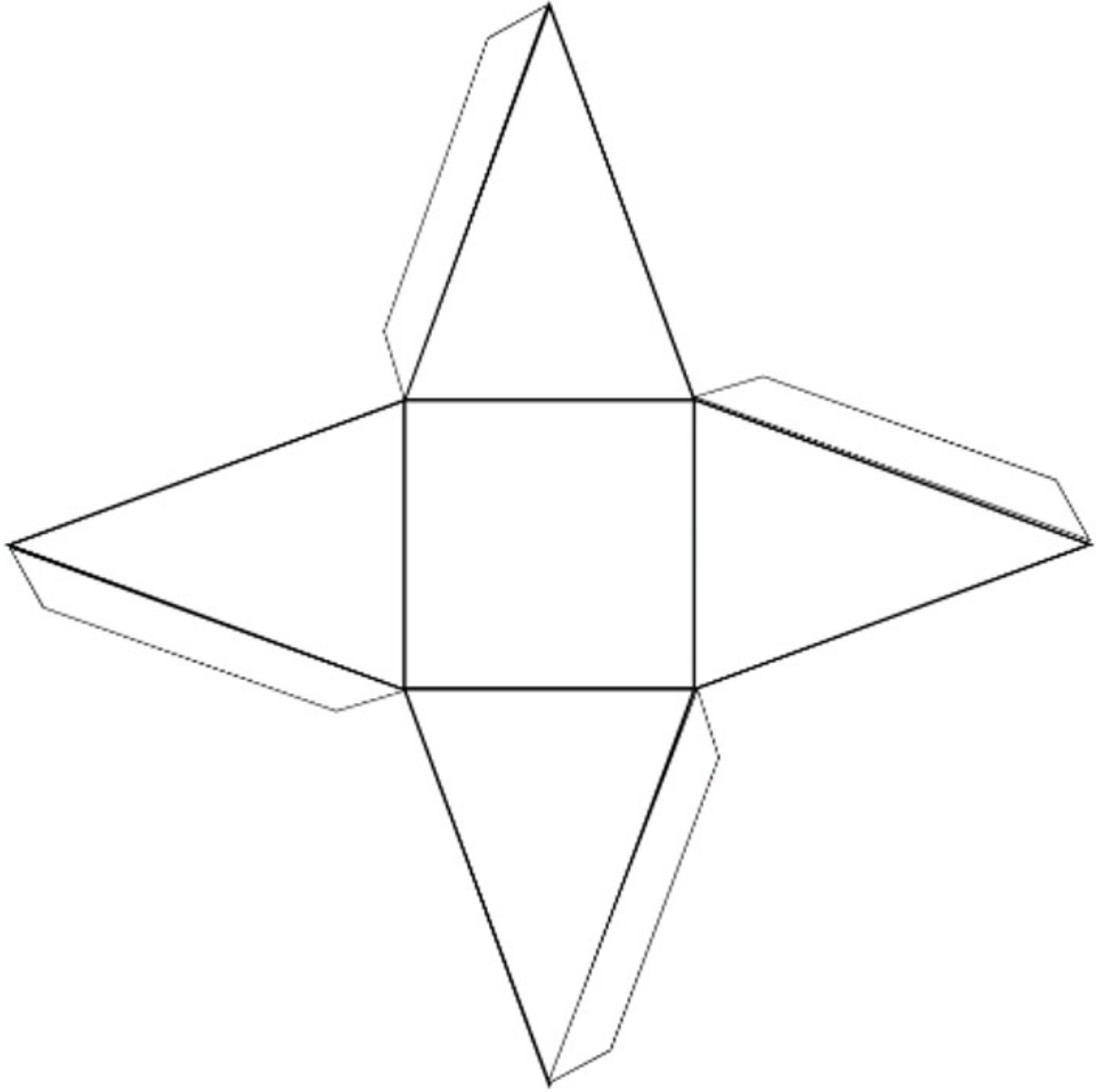
**A Bit Stuck?**  
**Shape making**



**A Bit Stuck?**  
**Shape making**



**A Bit Stuck?**  
**Shape making**



## Check your understanding

### Questions

What is this shape?

1. It has 6 faces.
2. It has 12 edges.
3. 4 edges are twice the length of the other 8 edges.

---

True or false:

- All cubes have eight vertices.
- A pyramid always has a square base.
- A cylinder has 3 faces.
- There is a shape with just 1 face.
- A cone has 1 circular face.

---

Tick the polyhedrons:

- sphere
- cube
- cone
- triangle based pyramid
- cuboid
- cylinder

---

---

## Check your understanding

### Answers

What is this shape?

1. It has 6 faces.
2. It has 12 edges.
3. 4 edges are twice the length of the other 8 edges.

A type of cuboid.

---

True or false:

- All cubes have eight vertices **True**.
  - A pyramid always has a square base. **False, a tetrahedron has a triangular base; pyramids can also have other polygons as a base.**
  - A cylinder has 3 faces or surfaces. **True**
  - There is a shape with just 1 surface. **True - a sphere**
  - A cone has 1 circular face. **True**
- 

Tick the polyhedrons:

- sphere
- cube ✓
- cone
- triangle based pyramid ✓
- cuboid ✓
- cylinder

A polyhedron has all flat faces.