

Look Back

Student's book p.87



What is the shape of the box? How many faces does it have?
What is the shape of each face?

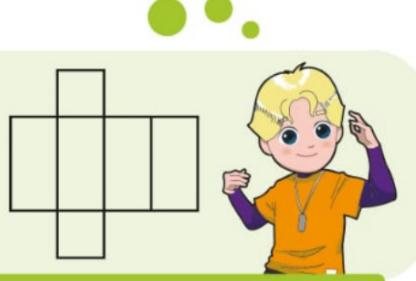
A cube has 6 faces,
each face is a square.

Thinking Cap



Izzy wants to fold the figure on the right along the lines into a box. Will the folded box have the same shape as the box above?
Trace the figure on the right and cut it out.

No, it will be a cuboid.



Let's Learn

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a Mr. Chan folds two flat pieces of cardboard, Figures A and B, along the lines into boxes. Each box has the shape of a cube.

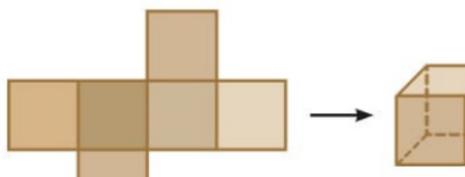


Figure A

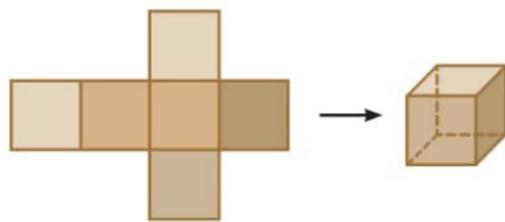


Figure B

Figures A and B are **nets** of a cube. There are 6 square faces on each net.

A net is a 2D shape that can be folded to form a 3D shape.

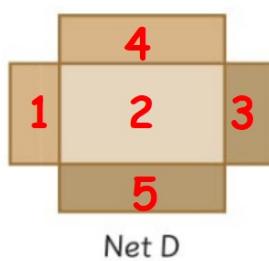
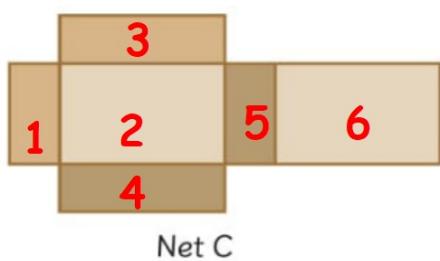
There are many different nets that make a cube but all of them have the same number of faces (6 square faces)



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b Talia unfolds the box on the right to get a flat piece of cardboard.

Which net shows the piece of cardboard Talia gets?



A cuboid has 6 faces

The box has the shape of a cuboid.
It has six flat faces.

Net C has 6 flat faces.

Net D has 5 flat faces.

Net C shows the piece of cardboard Talia gets.

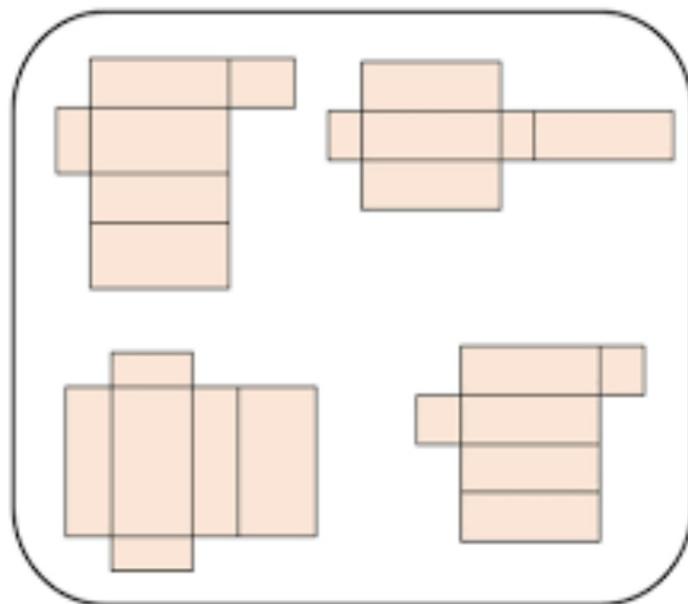
What if the cuboid has an open face at the top?
Will the net be same?
Discuss with your partner.



No it will look like Net D

different nets that make a cuboid

faces are
mostly
rectangular



number of faces
is always 6

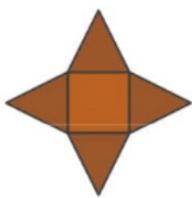
c Daniel unfolds an empty chocolate box.

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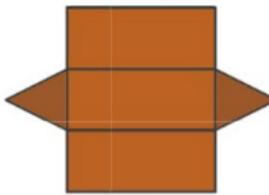


triangular prism

Which net shows the unfolded box?



Net E



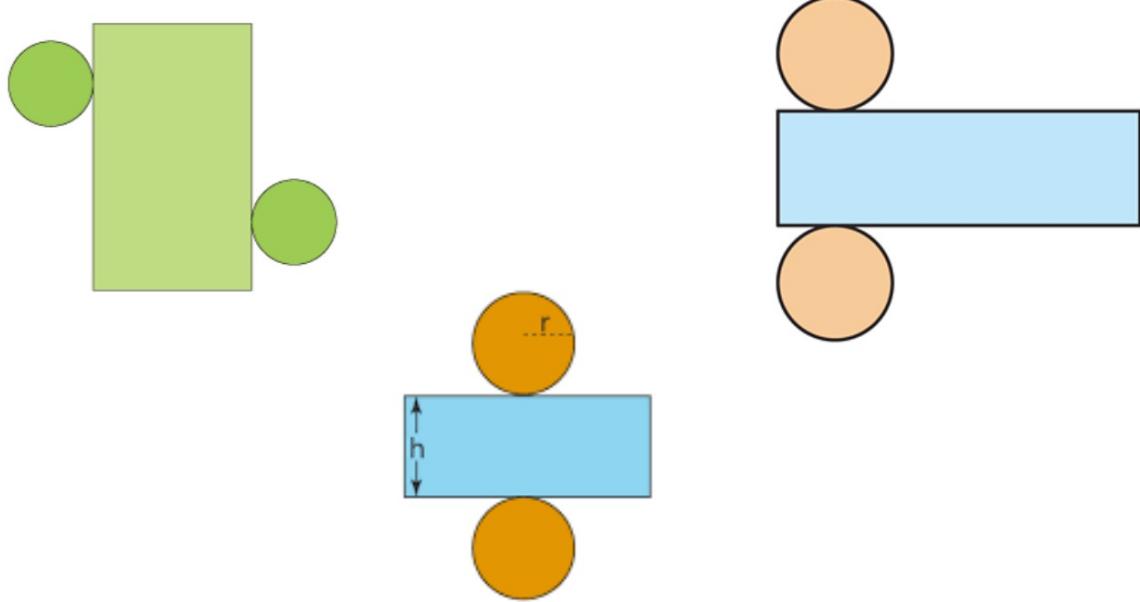
Net F

The chocolate box has 2 triangular faces and 3 rectangular faces.

Net E has 4 triangular faces and 1 square face.

Net F has 2 triangular faces and 3 rectangular faces.

Net F shows the unfolded chocolate box.



All these nets represent which shape? cylinder

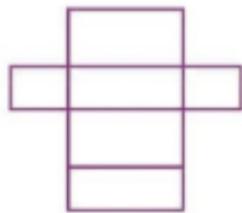
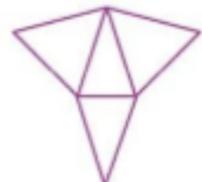
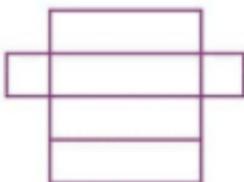
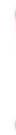
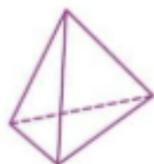
hint

Think of a shape that has 2 circles as bases.

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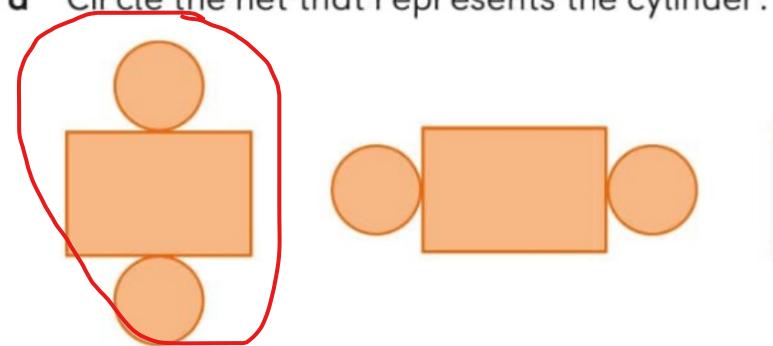
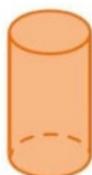
Let's Practise

I Match each 3D shape to the correct net.



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2 Kim rolls a piece of plastic to make a cylinder as shown on the right.



b What is the shape that forms the curved surface of the cylinder?
Make a conjecture. **a circle**

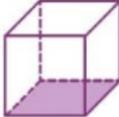
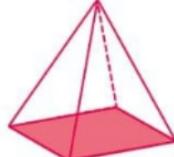
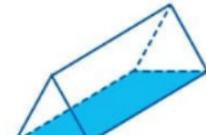
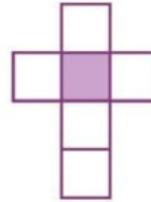
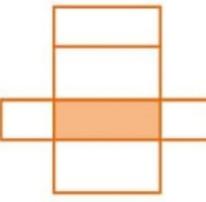
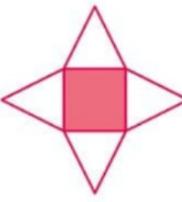
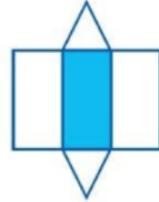
3D Shapes

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A **net** is a 2D shape that can be folded to form a 3D shape.

The shapes that form the net are the faces of the 3D shape.

Different 3D shapes have different numbers of **flat faces**.

| Type of 3D shapes | | | | |
|----------------------|---|---|---|---|
| | Closed Cube | Closed Cuboid | Square Pyramid | Triangular Prism |
| 3D Shape |  |  |  |  |
| Net |  |  |  |  |
| Number of flat faces | 6 | 6 | 5 | 5 |