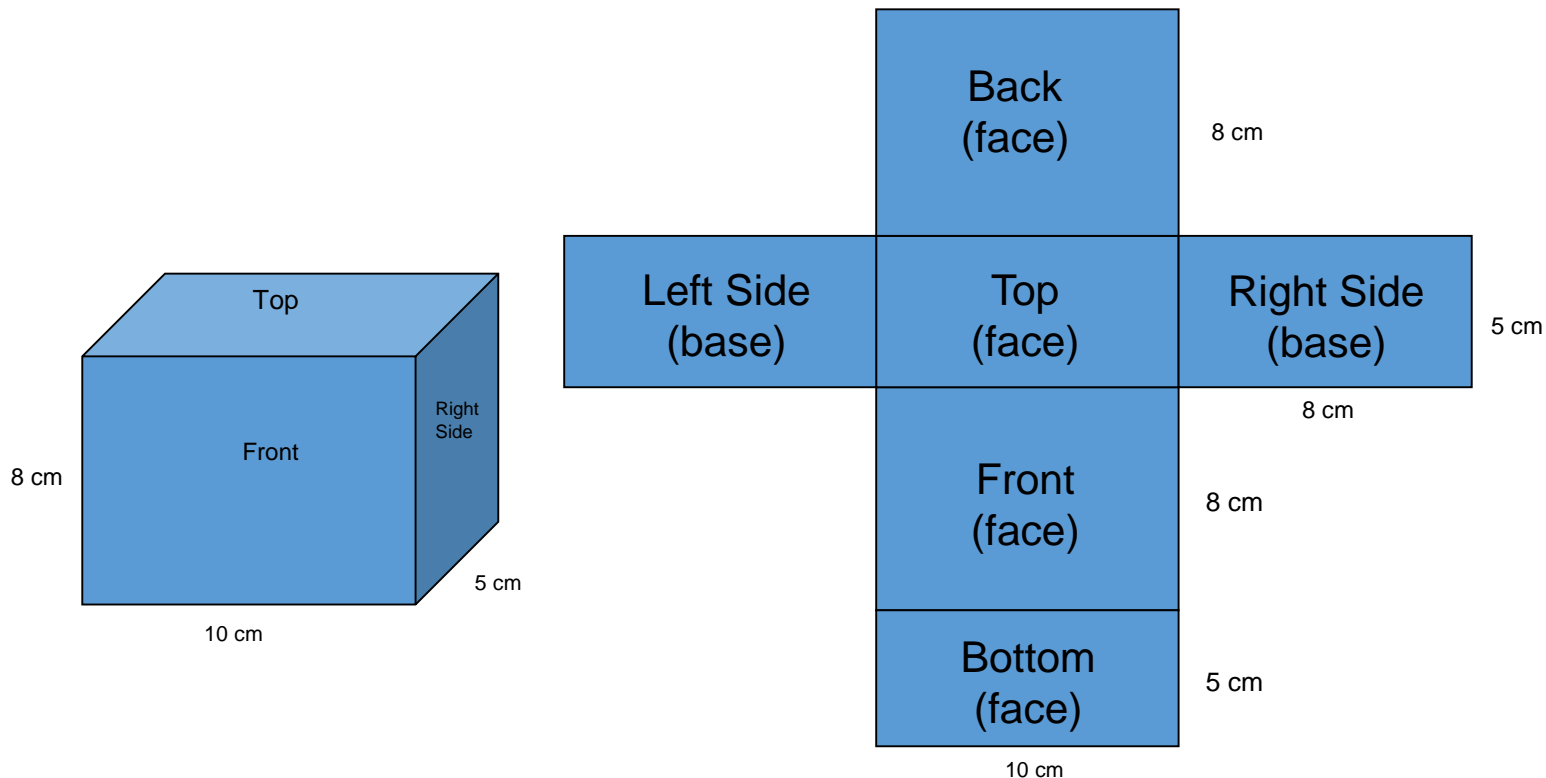


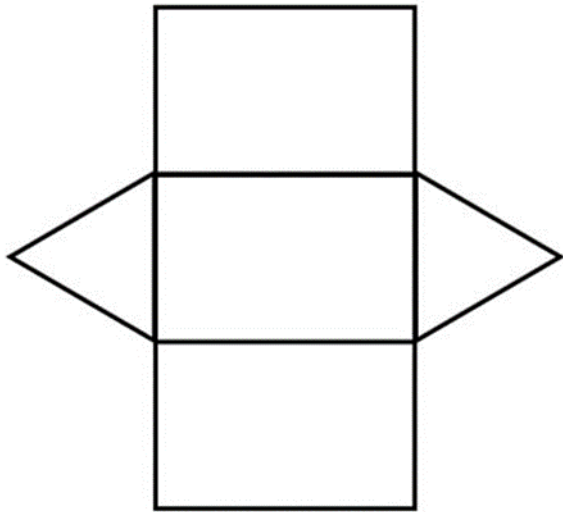
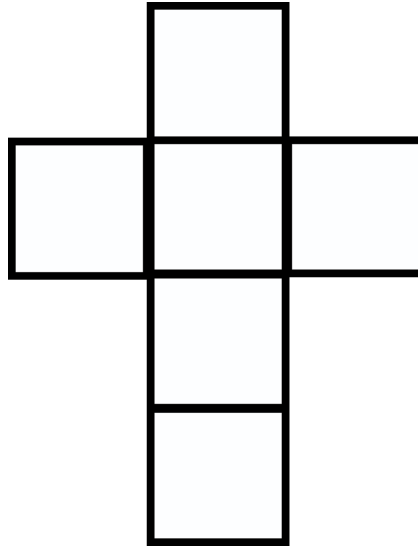
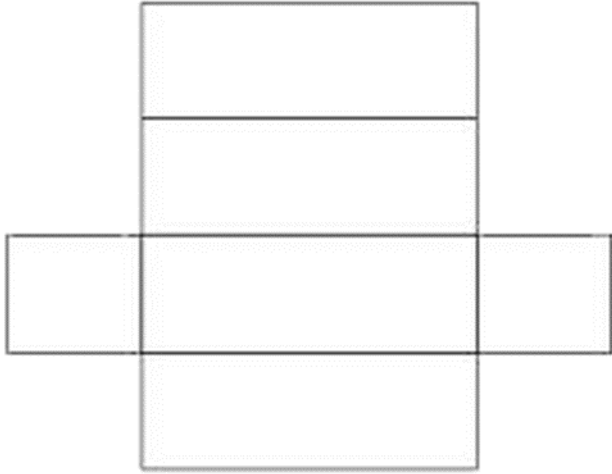
Surface Area & Nets

Nets

- A **net** is a 3-D solid unfolded or all of the surfaces laid out flat.



Examples of Nets



Can you identify the faces?
The bases?

Identifying 3-D Prisms & Pyramids

3-D shapes are *identified* by their faces & base(s).

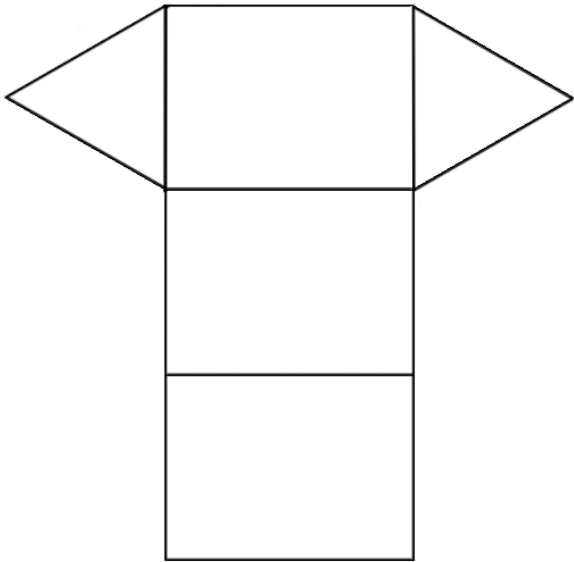
3-D shapes are *named* by their base(s).

Prism- 2 bases & faces are rectangles.

Pyramid- 1 base & faces are triangles

Identifying 3-D Prisms & Pyramids

For example:



How many bases does this net have?

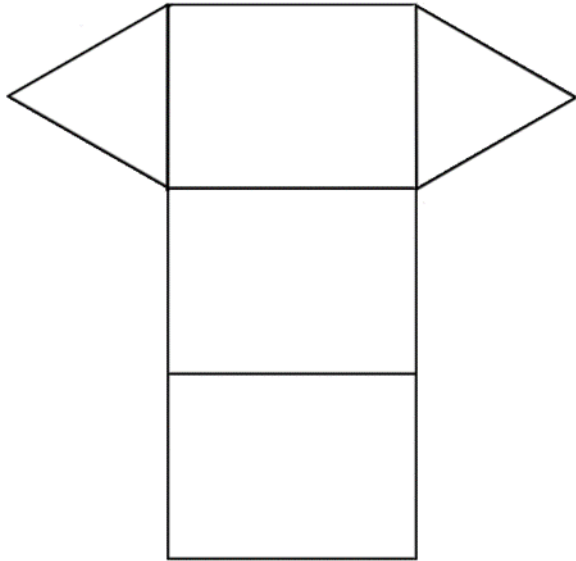
What shape is the base of this net?

What shape are the faces?

This is a

_____.

Identifying 3-D Prisms & Pyramids

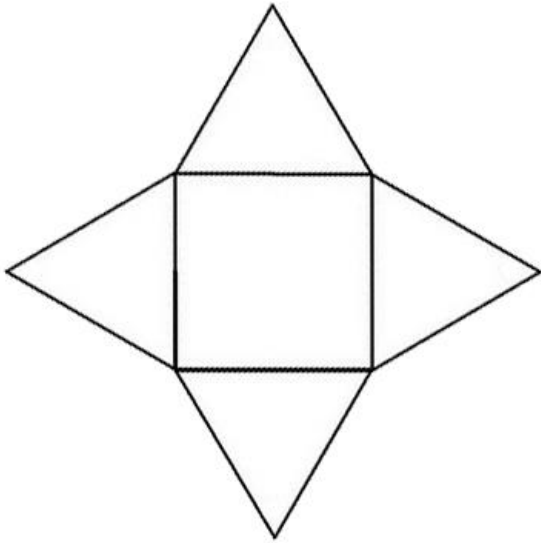


This net has 2 bases.
Therefore, it is a **Prism**.

The bases are triangles.
Therefore, it is a **Triangular Prism**.

Identifying 3-D Prisms & Pyramids

For example:



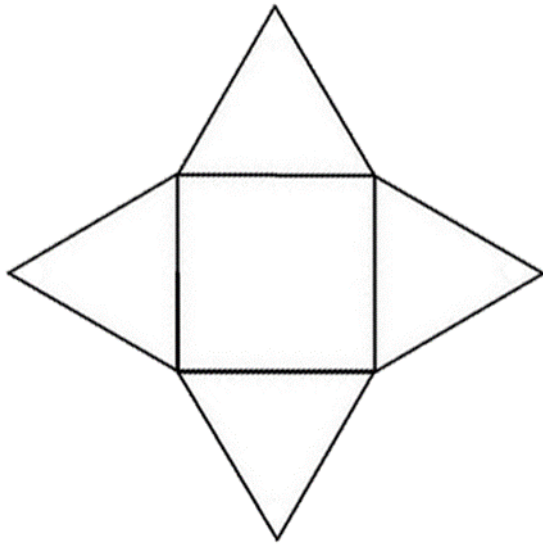
How many bases does this net have?

What shape is the base of this net?

What shape are the faces?

This is a

Identifying 3-D Prisms & Pyramids



This net has 1 base.

Therefore, it is a **Pyramid**.

The base is square.

Therefore, it is a **Quadrilateral Pyramid**.

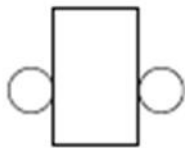
1)



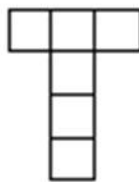
a)



b)



c)



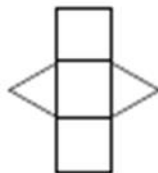
2)



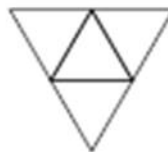
a)



b)



c)



3)



a)



b)



c)



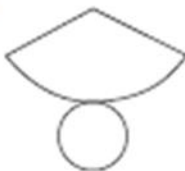
4)



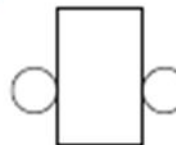
a)



b)



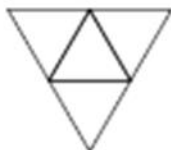
c)



5)



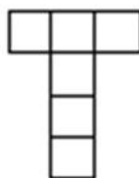
a)



b)



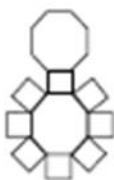
c)



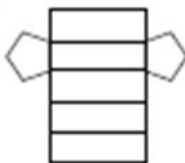
6)



a)



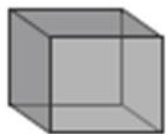
b)



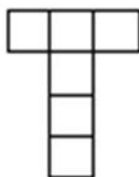
c)



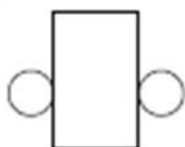
7)



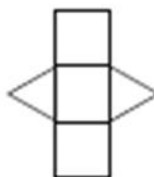
a)



b)



c)



*Match the 3-D shapes to the appropriate net on the right-hand side.

*Name each 3-D shape.

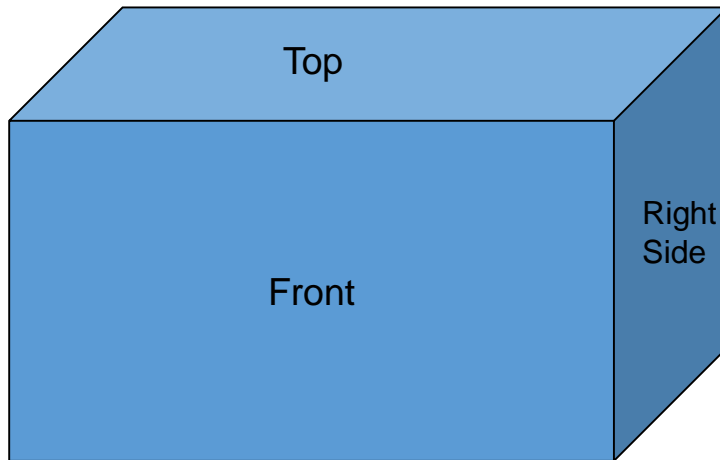
Definition:

- **Surface Area** – is the total number of unit squares used to cover a 3-Dimensional surface.



Find the Total SA of a Rectangular Solid

A rectangular solid has 4 faces & 2 bases.



They are:

- Top
- Bottom
- Front
- Back
- Right Side
- Left Side

We can only see 3 at any one time.

Which of the 6 sides are the same?

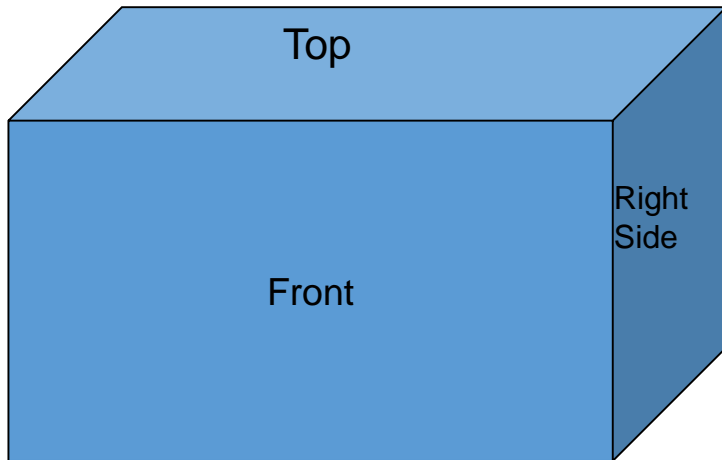
- Top and Bottom
- Front and Back
- Right Side and Left Side

Total Surface Area of a Rectangular Solid

We know that
each face & base is a
rectangle.

and the
formula for finding the
area of a rectangle is:

$$A = bh$$



Steps:

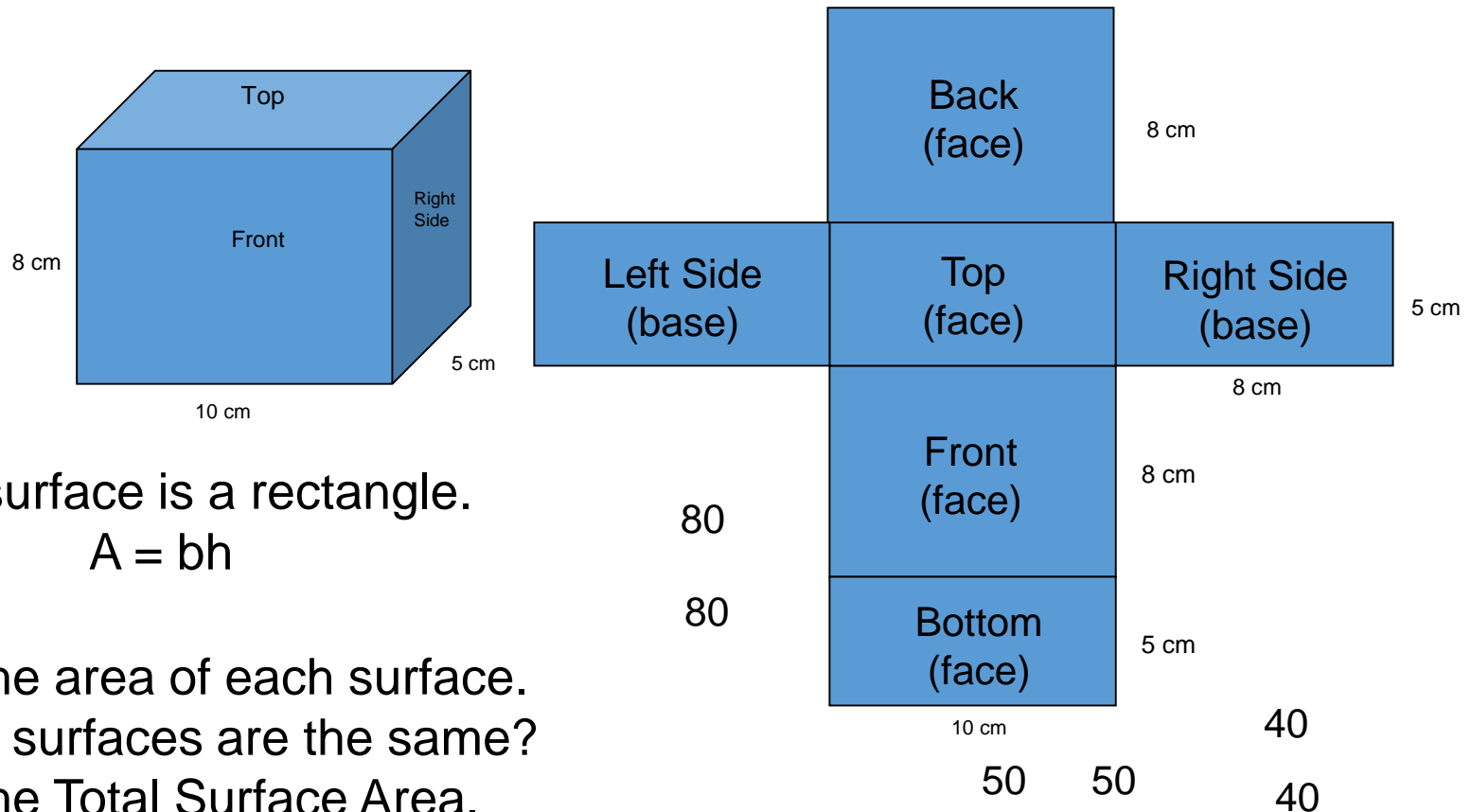
Find:

- Area of Top
- Area of Front
- Area of Right Side

- Find the sum of the areas
- Multiply the sum by 2.

The answer you get is the Surface Area of the
rectangular solid.

Find the Surface Area Using Nets



What is the Surface Area of the Rectangular solid?

340 cm²

Lateral Surface Area

* **Lateral SA-** Lateral Surface Area is the area of only the faces. It does NOT include the bases of the figure(net).