

Surface Area

Concept

The surface area of a solid is the total area of its surface. it's like finding the area of a two dimensional shape but there will be more than one side since it's 3 dimensional.

To find the surface area of this **RECTANGULAR PRISM** you have to find the area of each face (side) and then add them all together.

If you look closely you can see there are **6 faces (sides)** total.
So you would have to find the area of each face.

$$\text{Area of front or back} = (l \times h)$$

$$\text{Area of left or right} = (w \times h)$$

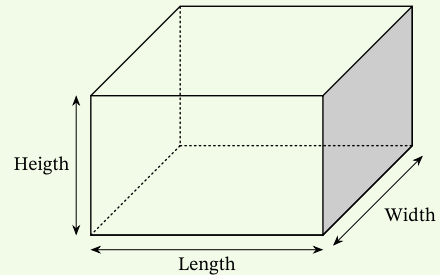
$$\text{Area of top or bottom} = (l \times w)$$

The surface area equation would look like this

$$(l \times w) + (l \times w) + (w \times h) + (w \times h) + (l \times h) + (l \times h)$$

OR

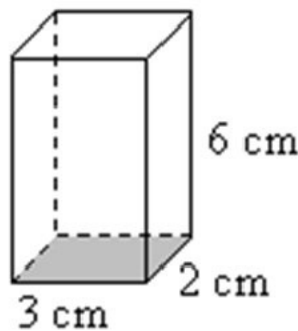
$$2(l \times w) + 2(w \times h) + 2(l \times h)$$



Example

- The formula for the surface area of a rectangular prism is $2(lw) + 2(wh) + 2(lh)$.

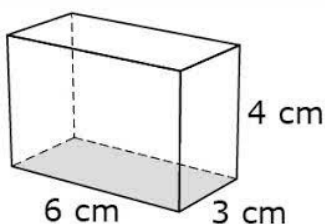
**Helpful
Example**



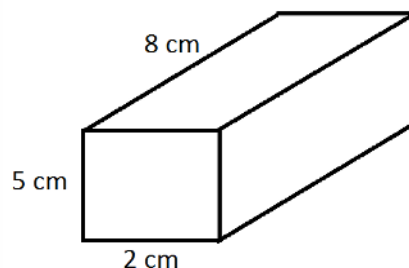
- $2(3 \times 2) + 2(2 \times 6) + 2(3 \times 6)$
- $2(6) + 2(12) + 2(18)$
- $12 + 24 + 36$
- $36 + 36$
- 72

Find the surface area of each shape

A)



B)



C)

