

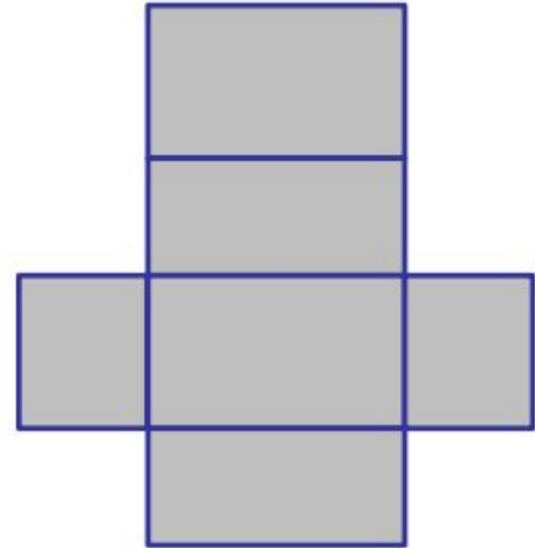
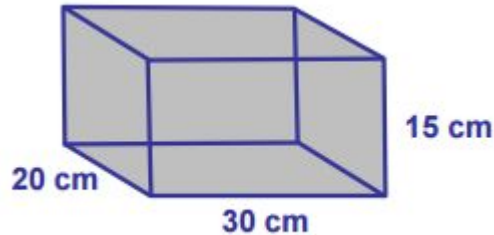
Prism and Surface Area

Whenever you cover an object, the amount of material needed to cover the object is considered the surface area.

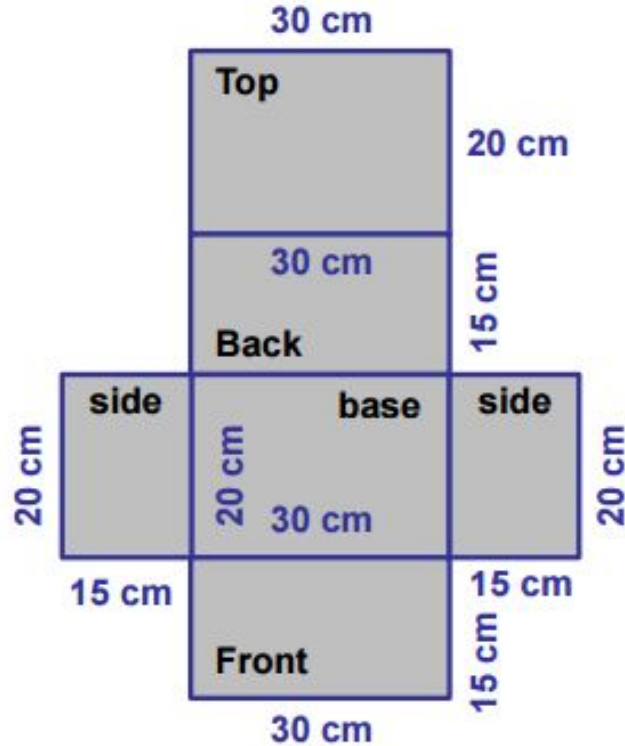
Rectangular Based Prism

-In order to calculate the surface area of a prism, we will use a net to break down the shape into its pieces.

-The area of each piece will be calculated and then added to the other pieces.



Now we can see that a rectangular prism is just made up of 6 rectangles.



Your calculations will represent this:

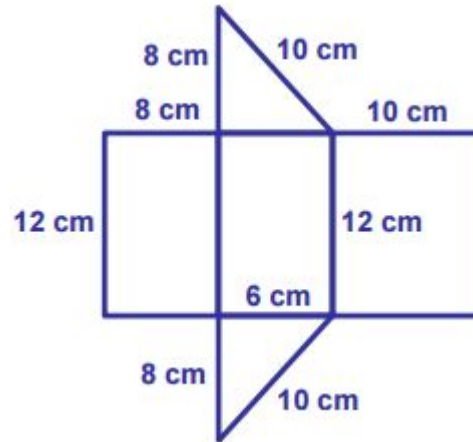
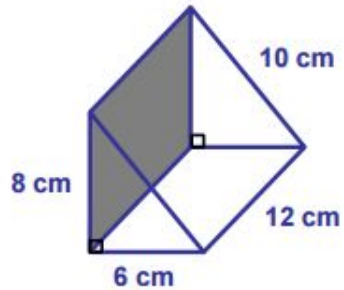
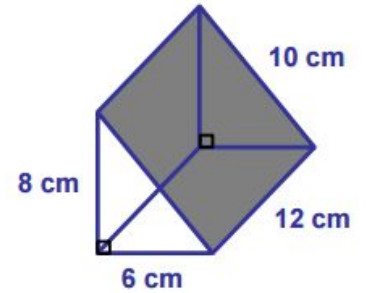
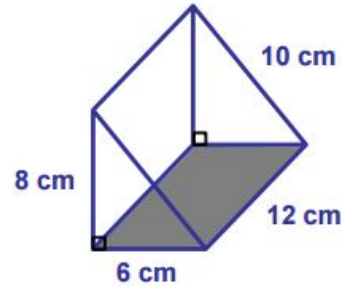
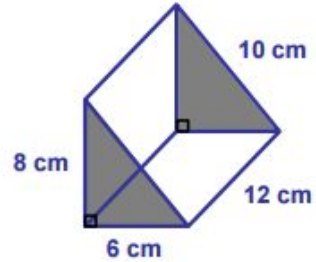
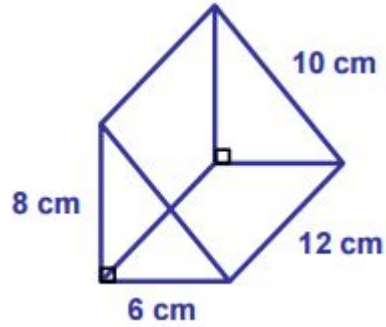
$$SA = 2(\text{Diagram 1}) + 2(\text{Diagram 2}) + 2(\text{Diagram 3})$$

The diagram shows three rectangular prisms, each with dimensions 20 cm (width, W), 30 cm (length, L), and 15 cm (height, H). The prisms are oriented differently to show different pairs of opposite faces:

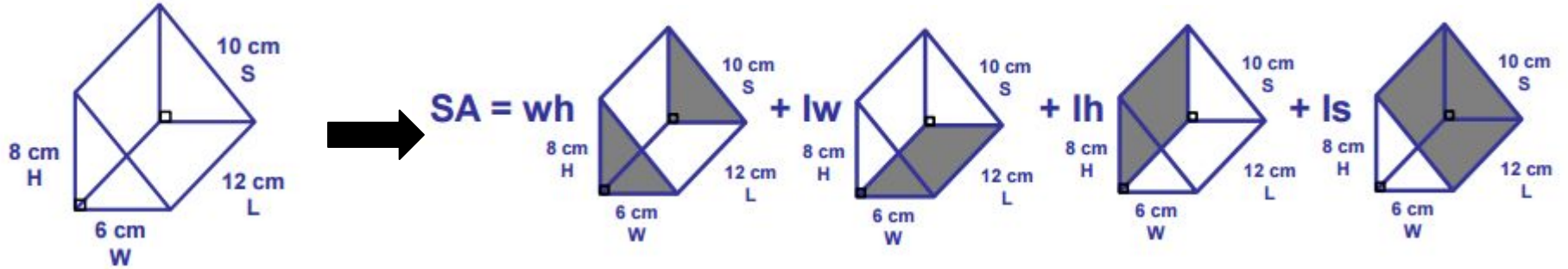
- Diagram 1:** Shows the front face (W x H) and the back face (W x H).
- Diagram 2:** Shows the left face (W x L) and the right face (W x L).
- Diagram 3:** Shows the top face (L x W) and the bottom face (L x W).

Calculations:

Triangular Based Prism

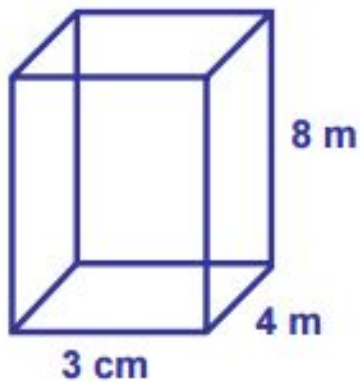


To find the surface area...



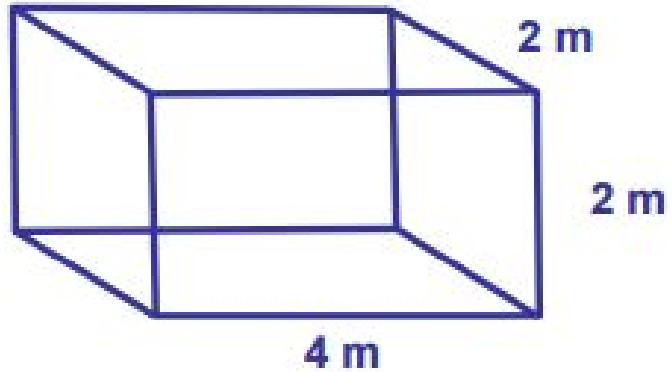
Example 1.

Draw and label a net to represent the rectangular prism below.



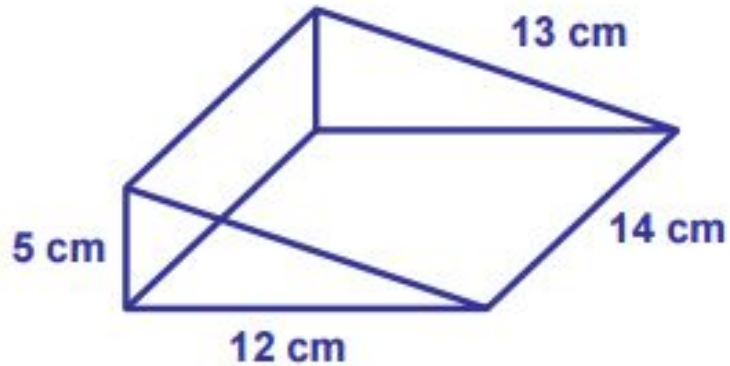
Example 2.

Calculate the surface area of the rectangular prism.



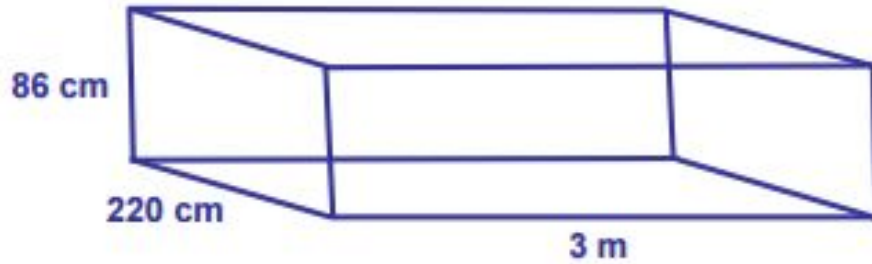
Example 3:

Calculate the total surface area of the triangular prism.



Example 4:

Calculate the Surface Area of the following:



HW

P. 187 # 1, 2, 3a/b/

p.191 # 9a/b, 10 a,b,c