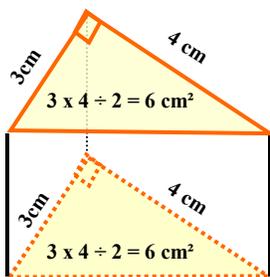# How To Find The Surface Area Of A Triangular Prism
## Step by step lesson to find the triangular prism surface area

The lesson below is the 2nd lesson on finding the  surface area of a triangular prism. In this lesson the prism is landing on one of the triangular faces instead of a rectangular face.

Carefully look at the given prism below and follow all the instructions to find its surface area.
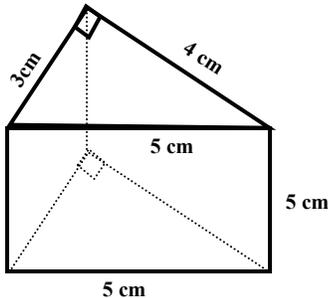
Given triangular prism is landed on one of its triangular face and all the three rectangular faces are on the sides of the prism. Again your job is to see all the five faces, one at a time. Look at the following figures to see one face of the prism at a time. This time I tried to solve for each face inside it or near by it.

Look at both the triangular faces. To find the area of a triangle, the square edge is the key. Just multiply two side making the square edge and divide it by 2 to get the area of a triangle. Sides with lengths 3 cm and 4 cm makes a square edge. Hence the area of one triangular face is given by = 3 x 4 ÷ 2, but both the triangular faces are equal, so multiply the given numbers by 2 as shown below:

Area of two triangular faces = 3 x 4 ÷ 2 x 2 = 12 cm²

*Note that, area of both triangular faces of any triangular prism is multiplication of two sides making a square edge or in other words base times height of any  triangular face gives the area of both the triangular faces (always).*

Still we have three faces left. Look at each of the rectangular faces as shown below:
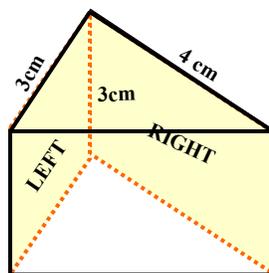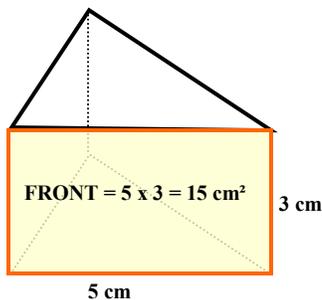
*Area of left rectangle = 3 x 3 = 9 cm²*

*Area of right rectangle = 3 x 4 = 12 cm²*

Now is the time to find the surface area of the triangular prism by adding all the areas we have calculates above, as shown below:

Surface area of the triangular prism = Area of two triangular faces + Area of the front rectangle

+ Area of the left rectangle + Area of the right rectangle

= 12 + 15 + 9 + 12 = 48 cm²