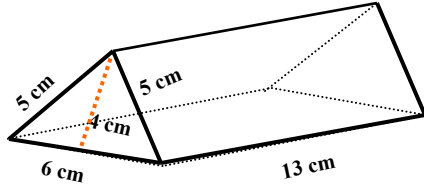


Surface Area Of A Triangular Prism

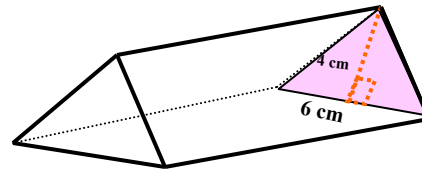
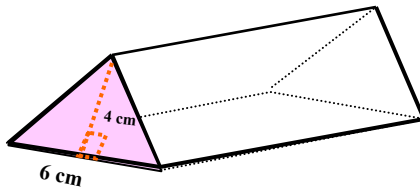
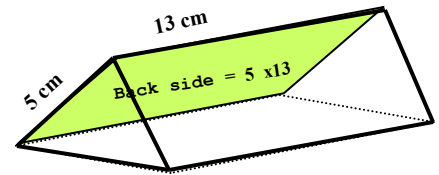
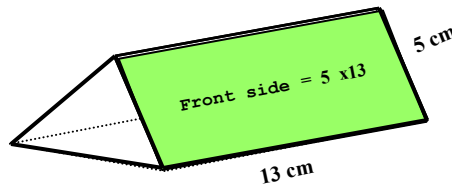
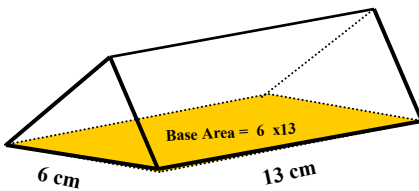
Step by step lesson to find the triangular prism surface area

Below are the steps explaining how to find the surface area of a triangular prism. Follow these steps if you want to do the triangular prism surface area problems easily.

Look at the shape of the triangular prism given, very carefully. Consider we have the following triangular prism and question is to find its surface area.



You need to take a look at this prism, one face at a time. Two triangular faces and three rectangular faces. I will colour each face one face at a time (you too can color each face with a different color as shown below)



Look, both triangular faces are same. So, you need to find the area of one face and multiply by 2 to get area of both triangular faces which is = (base 6 x height 4 ÷ 2) x 2

In other words, base times height of the triangular face will do for the area of both triangular faces of the prism = 6 x 4

Now to find the surface area of the prism, add all the areas of triangles and rectangles as shown below:

Surface area = Area of two triangular faces + Area of bottom rectangle + Area of two side rectangles

$$\text{Surface area} = 6 \times 4 + 6 \times 13 + 13 \times 5 \times 2 = 24 + 78 + 130 = 232 \text{ cm}^2$$

Notes on finding the surface area of a triangular prism:

1. To find the area of two triangular faces, just multiply the base of triangle with the height of the face (as divide by 2 and multiply by 2 cancel each other). So, area of two triangular faces is just $6 \times 4 = 24$, where 6 is the base of triangular face and 4 is the perpendicular height of each triangular face.
2. Two rectangular faces at front and back are same so we did find the area of one (13×5) and times it by 2 ($13 \times 5 \times 2$) to get area of both front and back rectangular faces.