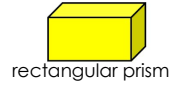


# Surface Area of Prisms

## (Rectangular & Triangular)

### What is a prism?

A prism is a 3-D shape that has the same shape for both bases.

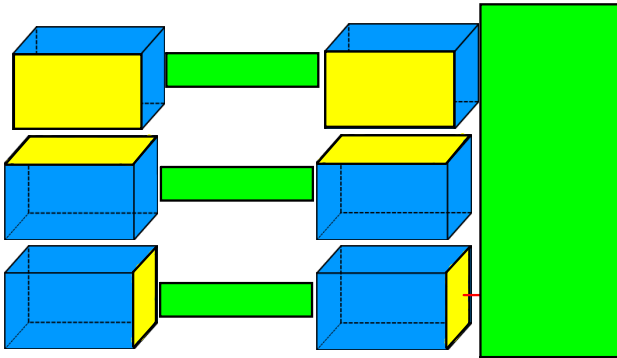


### What is surface area?

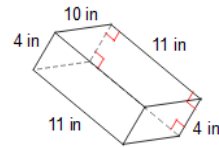
the area of all of the surfaces of a 3D shape added together

How would you find the area of each face?

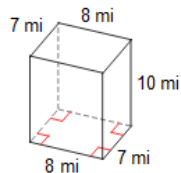
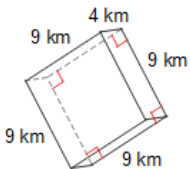
How many faces of each are there?



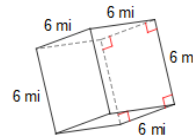
Find the Surface Area



Find the Surface Area



How would you find the area of a cube?

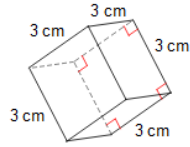
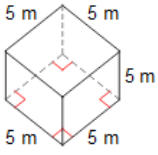


Formula for a square? \_\_\_\_\_

How many sides does a cube have? \_\_\_\_\_

# Notes- Surface Area of Prisms (7+).notebook

Find the Surface Area



Molly makes a rectangular cake that is 12 inches long, 9 inches wide, and 2 inches high. If she covers the cake in frosting, how many square inches of frosting does she need?

You are painting a room that is 18 ft long, 14 ft wide and 8 ft high. How many square feet of paint do you need to paint the walls.

## Triangular Prism

Surface Area = sum of the area of the faces

2 congruent triangles

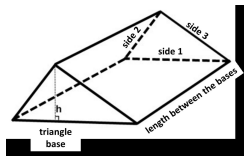
$$A_T = \frac{1}{2} b h$$

3 rectangles

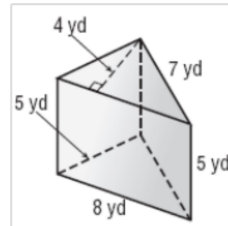
$A_1$  = side 1 X length between the bases

$A_2$  = side 2 X length between the bases

$A_3$  = side 3 X length between the bases



Calculate the surface area of the triangular prism.



$$\text{Surface Area} = 2A_T + A_1 + A_2 + A_3$$

Calculate the surface area of the triangular prism.

