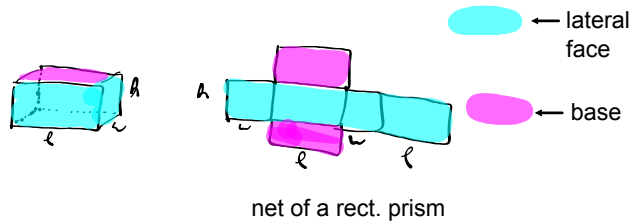


# Lesson 9.1a Surface Area of Prisms

## 9.1a Surface Area of Prisms

S.A. of a Rectangular Prism - the sum of the areas of the bases and the lateral faces.



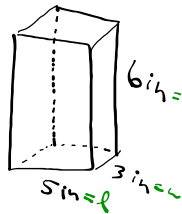
S.A. of a Rect. Prism

$$S.A. = 2lw + 2lh + 2wh$$

area of 2 bases

areas of lateral faces

Ex. 1



$$SA = 2lw + 2lh + 2wh$$

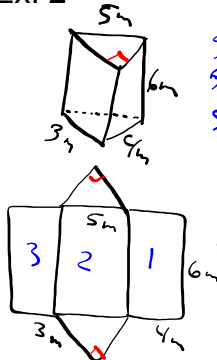
$$SA = 2(5in)(3in) + 2(5in)(6in) + 2(3in)(6in)$$

$$SA = 30in^2 + 60in^2 + 36in^2$$

$$SA = 126in^2$$

S.A. of a prism - the sum of the bases and the lateral faces.

Ex. 2



$$SA = 2B + \text{lat. faces}$$

$$SA = 2\left(\frac{1}{2}bh\right) + l \cdot w + l \cdot w + l \cdot w$$

$$SA = 2\left(\frac{1}{2}(3m)(4m)\right) + 4m(6m) + 5m(6m) + 3m(6m)$$

$$SA = 12m^2 + 24m^2 + 30m^2 + 18m^2$$

$$SA = 84m^2$$

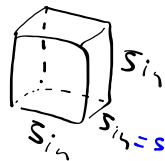
S.A. of a Cube

$$S.A. = 6s^2$$

s = side



Ex. 3



$$SA = 6s^2$$

$$SA = 6(5in)^2$$

$$SA = 6(25in^2)$$

$$SA = 150in^2$$