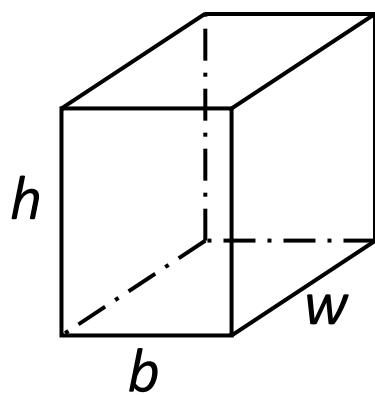
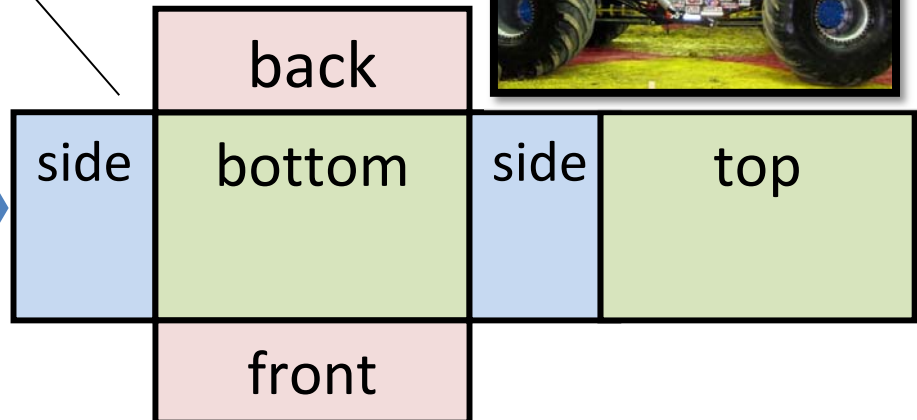


8.2 (pg.362) Surface Area of Prisms

The **surface area** of a solid is the **sum** of the areas of all its faces.



This is called a net.



Surface Area of a Rectangular Prism is...

3 Different formulas to choose from:

Method 1) $2bh + 2bw + 2hw$

Method 2) $2(bh + bw + hw)$

Method 3) $bh + bh + bw + bw + hw + hw$



Example: Find the surface area of the rectangular prism.

$$S.A. = 2bh + 2bw + 2hw$$

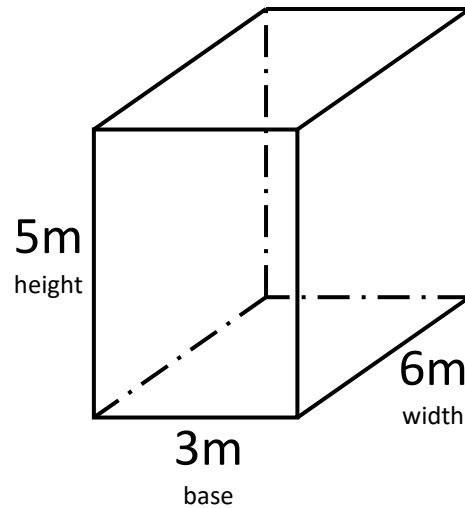
$$2bh = 2(3)(5) = 30 \text{ Front \& Back}$$

$$2bw = 2(3)(6) = 36 \text{ Top \& Bottom}$$

$$2hw = 2(5)(6) = 60 \text{ Sides}$$

$$30 + 36 + 60 = 126$$

$$126 \text{ m}^2$$



Example: Find the surface area of the triangular prism.

$$S.A. = \frac{1}{2}bh + \frac{1}{2}bh + bh + bh + bh$$

$$= \frac{1}{2}4(5) + \frac{1}{2}4(5) + 7(4) + 6(7) + 5(7)$$

$$= 10 + 10 + 28 + 42 + 35$$

$$= 125$$

$$125 \text{ cm}^2$$

