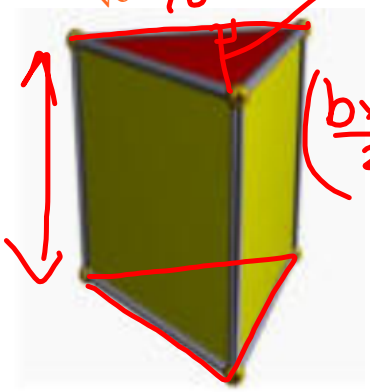
Volume of Containers

To save money volume should be close as possible to the volume of the product

We have to use cross-sections to help determine the area and volume of a container

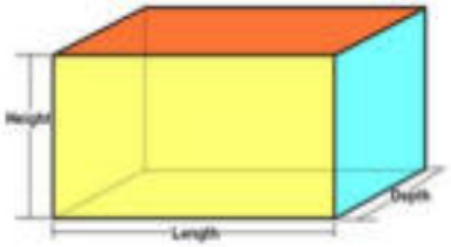


Triangular Prism

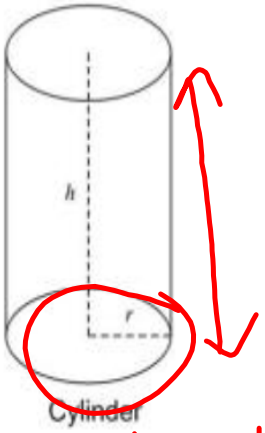
$\left(\frac{bh}{2}\right) \times H$

Prisms

$(L \times W) \times H$



Rectangular Prism

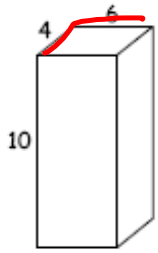


$(\pi r^2) \times h$

Volume = (Area of the base) x Height

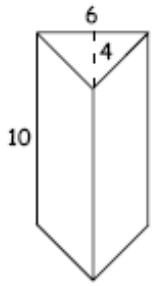
Find the volumes (dimensions are cm):

a.



(l x w) x H
(4 x 6) x 10
24 x 10 = 240 cm^3

b.



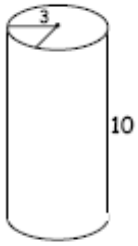
$\left(\frac{b \times h}{2}\right) \times H$

$\left(\frac{6 \times 4}{2}\right) \times 10$

$\frac{24}{2} \times 10$

12 x 10 = 120 cm^3

c.



$\pi r^2 \times H$

$3.14(3)^2 \times 10$

$3.14(9) \times 10$

282.6 cm^3