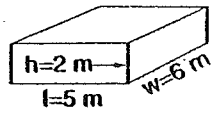
Volume of a Rectangular Prism

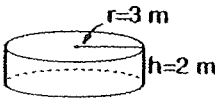
To find the volume (V) of a rectangular prism, use the formula **Volume = Base • height,** where B is the area of the base and h is the height.



Step #1 Find the Area of the Base	Step #2 Find the Volume
B = length • width B = 5 m • 6 m B = 30 m²	V = Base • height V = 30 m² • 2 m V = 60 m³

Volume of a Cylinder

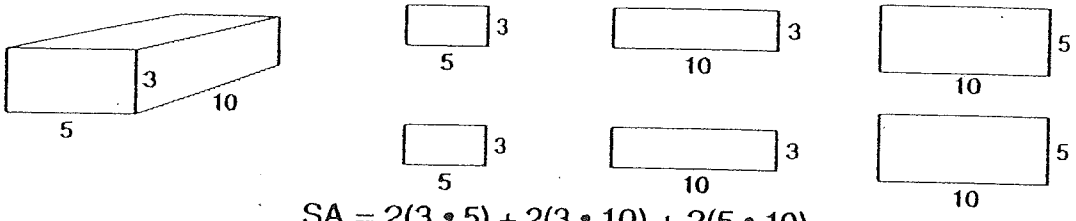
To find the volume of a cylinder, use the formula **Volume = Base • height,** where B is the area of the base and h is the height.



Step #1 Find the Area of the Base	Step #2 Find the Volume
$B = \pi r^2$ $B = 3.14 \cdot 3\ m^2$ $B = 28.26\ m^2$	Volume = Base • height Volume = 28.26 m² • 2 m Volume = 56.52 m³

Surface Area of a Rectangular Prism

To find the surface area (SA) of a rectangular prism, find the area of each face. Then add the areas to find the total.



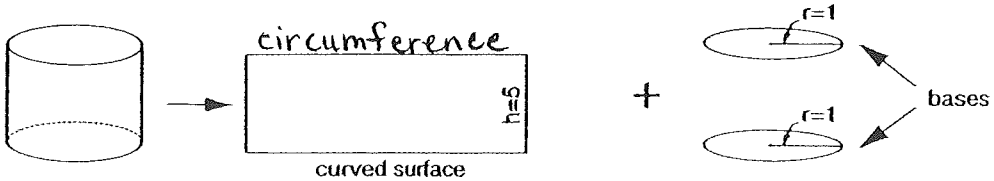
$SA = 2(3 \cdot 5) + 2(3 \cdot 10) + 2(5 \cdot 10)$

$SA = 30 + 60 + 100 = 190$

$SA = 190\ u^2$

Surface Area of a Cylinder

To find the surface area (SA) of a cylinder, find the area of the curved surface and add it to the total area of both bases. To do this, use the formula $SA = 2\pi rh + 2\pi r^2$.



Step #1 SA of the Curved Surface → circumference	Step #2 SA of the Bases	Step #3 SA of the Cylinder
$SA = 2\pi rh$ $SA = 2 \cdot \pi \cdot radius \cdot height$ $SA = 2 \cdot 3.14 \cdot 1 \cdot 5$ $SA = 31.4\ u^2$	$SA = 2\pi r^2$ $SA = 2 \cdot \pi \cdot radius^2$ $SA = 2 \cdot 3.14 \cdot 1 \cdot 1$ $SA = 6.28\ u^2$	$SA = 2\pi rh + 2\pi r^2$ $SA = 31.4\ u^2 + 6.28\ u^2$ $SA = 37.68\ u^2$