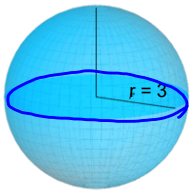
Area of 3D shapes

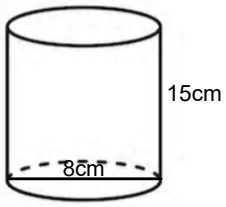
sphere $A = 4\pi r^2$

cylinder $A = 2\pi r^2 + 2\pi rh$

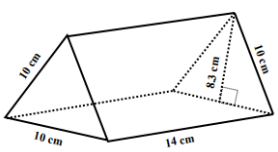
prism A = area of all the sides



$A = 4\pi r^2$
$= 4\pi(3)^2$
$= 36\pi$
$= 113.1$



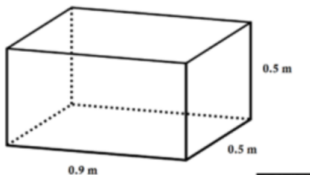
$A = 2\pi r^2 + 2\pi rh$
$= 2\pi(4)^2 + 2\pi(4)(15)$
$= 32\pi + 120\pi$
$= 152\pi$
$= 477.5\ cm^2$



$A_{triangles} = \frac{bh}{2} \times 2$
$= \frac{(10)(8.3)}{2} \times 2$
$= 83cm^2$

$A_{rectangles} = l \times w \times 3$
$= (14)(10) \times 3$
$= 420cm^2$

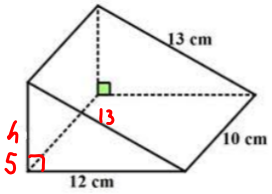
$A_{total} = 83 + 420$
$= 503cm^2$



$A_{square} = bh \times 2$
$= (0.5)(0.5) \times 2$
$= 0.5 m^2$

$A_{rectangles} = l \times w \times 4$
$= (0.9)(0.5) \times 4$
$= 1.8 m^2$

$A_{total} = 0.5 + 1.8$
$= 2.3 m^2$



$A_{triangles} = \frac{bh}{2} \times 2$
$= \frac{12(5)}{2} \times 2$
$= 60 m^2$

$a^2 = c^2 - b^2$
$h^2 = 13^2 - 12^2$
$= 169 - 144$
$= 25$
$h = \sqrt{25}$
$= 5 cm$

$A_{top} = bh$
$= (13)(10)$
$= 130 cm^2$

$A_{bottom} = bh$
$= (12)(10)$
$= 120 cm^2$

$A_{back} = bh$
$= (10)(5)$
$= 50 cm^2$

$A_{total} = 60 + 130 + 120 + 50$
$= 360 cm^2$

Homework

Worksheet...