# M8 - 7.2 - Cylinder/Triangular Prism Volume Notes
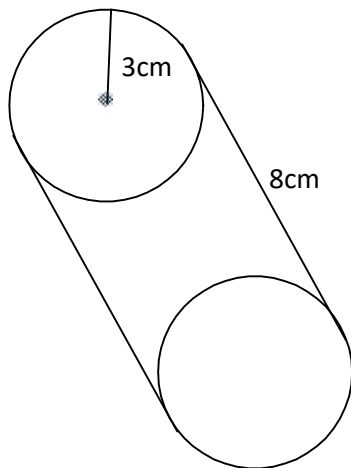
Volume: equal to the area of the base times the height: "$V = (area\ of\ base) \times (height)$". The base must be the same as the top.

**Cylinder**



Volume

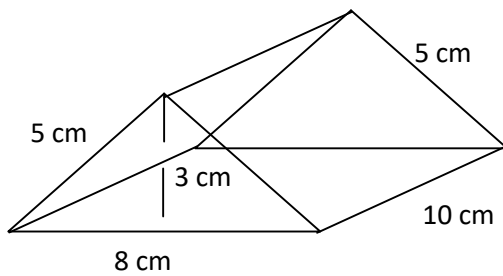$V = (area\ of\ base) \times (height)$
$V = (\pi r^2) \times (h)$
$V = \pi r^2 h$

$V = \pi r^2 h$
$V = (3.14)(3)^2(8)$

$V = 226.19 cm^3$

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**Triangular Prism**



Volume

$V = (area\ of\ base) \times (height)$
$V = \left(\dfrac{b \times h}{2}\right) \times (H)$
$V = \dfrac{bh}{2} \times H$

$V = \dfrac{bh}{2} \times H$
$V = \dfrac{(8)(3)}{2} \times (10)$

$V = 120 cm^3$

Notice: the volume is calculated by finding the area of the base of the triangular prism using the height of the triangle, $h$, multiplied by the height of the prism, $H$.