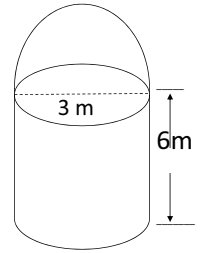


6.4 Volume of decomposable solids

1. Separate and identify the solids involved.
2. Write the formulas for all the solids involved.
3. Calculate them and add them together.

1

Ex 1: Find the volume of this silo in Kl:



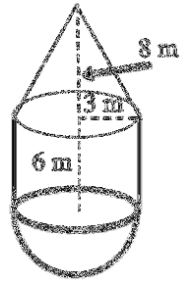
2

Ex 2: Find the volume of this ice cream cone in ml:



3

Ex 3: Determine the volume of this space probe



4

SOLIDS	LATERAL AREA	TOTAL AREA	Volume
RIGHT PRISMS	$A_{LAT} = P_B \cdot h$	$A_{TOT} = P_B \cdot h + 2A_B$	$V_{prism} = A_b \cdot h$
RIGHT CYLINDERS	$A_{LAT} = 2\pi r h$	$A_{TOT} = 2\pi r h + 2\pi r^2$	$V_{cylinder} = \pi r^2 \cdot h$
RIGHT REGULAR PYRAMIDS	$A_{LAT} = \frac{P_b s}{2}$	$A_{TOT} = \frac{P_b s}{2} + A_b$	$V_{pyramid} = \frac{A_b \cdot h}{3}$
RIGHT CONES	$A_{LAT} = \pi r s$	$A_{TOT} = \pi r s + \pi r^2$	$V_{cone} = \frac{\pi r^2 \cdot h}{3}$
SPHERES	$A_{LAT} = A_{TOT} = 4\pi r^2$		$V_{sphere} = \frac{4\pi r^3}{3}$
HEMISPHERE	$A_{LAT} = A_{TOT} = 2\pi r^2$		$V_{sphere} = \frac{2\pi r^3}{3}$

Note: if the base is included, add πr^2

Practice:
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