The National Orthodox School Shmaisani

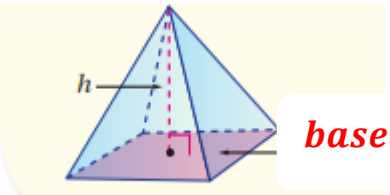
Name: **Worksheet(4) volume of pyramids and cones**

Grade:8(A, B)

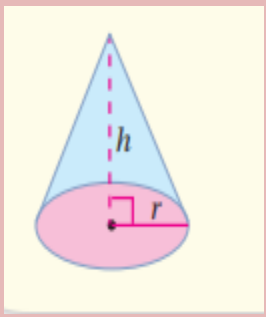
Subject : Math (Unit (7):Mensuration of planes and solids) **Date :**

Objective: Find the volume of pyramids and cones

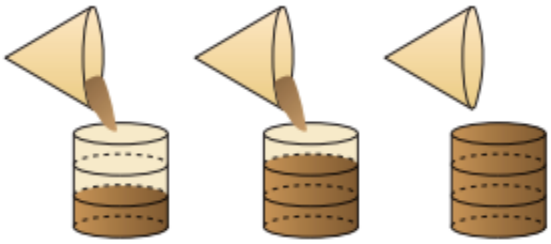
$$volume\ of\ the\ pyramid = \frac{1}{3} area\ of\ the\ base \times height(h)$$

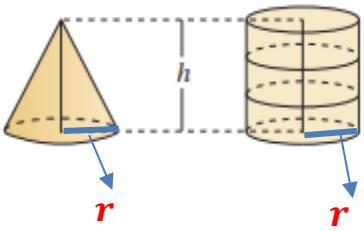


$$volume\ of\ the\ cone = \frac{1}{3} area\ of\ the\ base \times height(h)$$



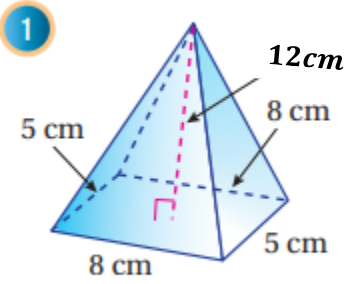
$$V = \frac{1}{3}\pi r^2 h$$



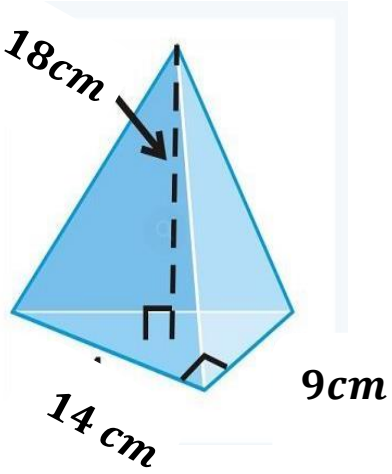


Exercise (1): *Find the volume of the following solids*:

1



2



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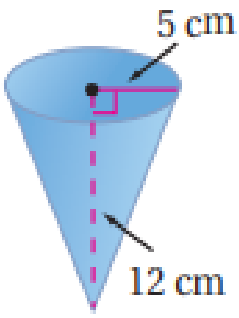

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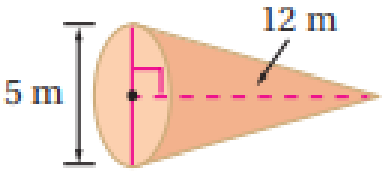

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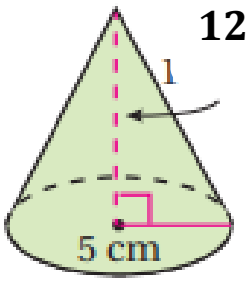

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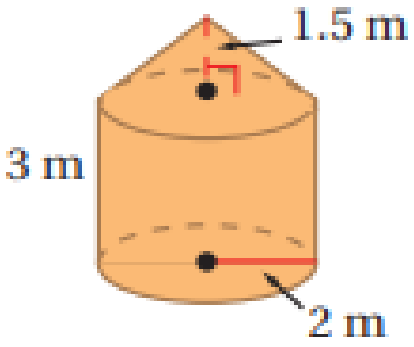

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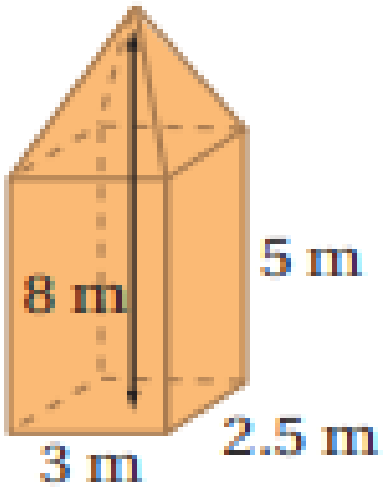
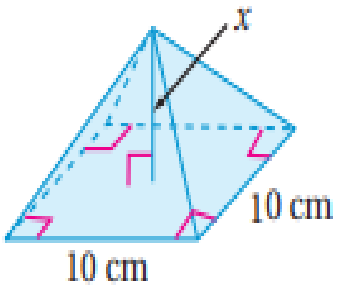


Exercise (2): *Find the missing dimension in each of the following solids*:

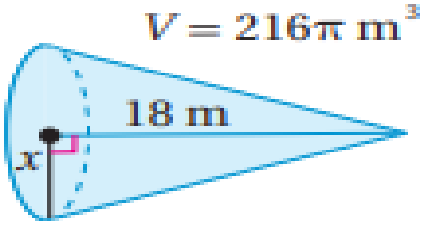
1

$V = 200\ \text{cm}^3$

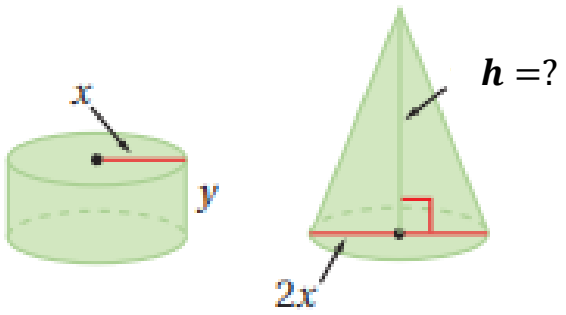


2

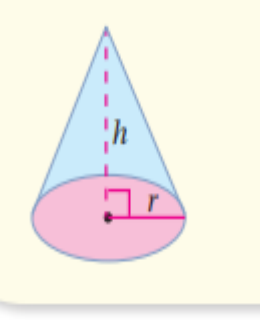
$V = 216\pi\ \text{m}^3$



Exercise (3): The cone and the cylinder shown below have the same volume , find the height of the cone(h) if the height of the cylinder(y) = $2\frac{3}{4}$ cm ?



***Exercise* (4): *The area of the base of the cone shown below is* $(314)cm^2$ *and a height* $(9cm)$, *find* : *a*)*its volume*. *b*)*its radius*.**



***Exercise*(5): *Find the height of a pyramid of volume* $20m^3$ *and base area* $12m^2$?**