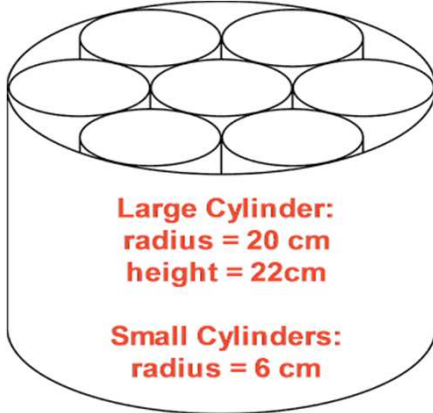


MasterMath

Volume of Composite Solids

Name _____
Date _____

1. Answer the following questions regarding this figure



Large cylinder
with small
cylinders cut out

Volume Formulas

Rectangular Prism = bwh

Triangular Prism = Bh

Cylinder = $\pi r^2 h$

Pyramid = $1/3 Bh$

Cone = $1/3 Bh$

B = area of base

Volume of each small cylinder

$$3.14 * 6 * 6 * 22 = 2,486.88$$

Total volume of all small cylinders

$$2,486.88 * 7 = 17,408.16$$

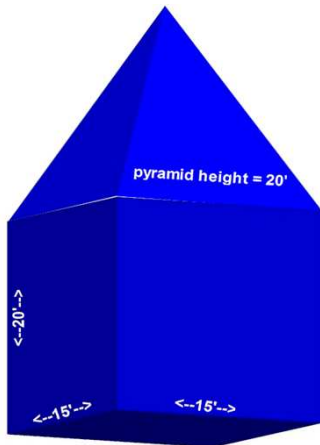
Volume of large cylinder

$$3.14 * 20 * 20 * 22 = 27,632$$

Composite Volume of Figure

$$27,632 - 17,408.16 = 10,223.84$$

2. Answer the following questions regarding this figure



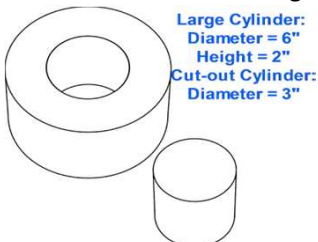
Volume of the base $15 * 15 * 20 = 4500$ cu ft

Volume of the top $1/3 * 15 * 15 * 20 = 1500$ cu ft

Volume of Composite Figure

$$4500 + 1500 = 6000$$
 cu ft

3. Find the volume of this figure:



$$(3.14 * 3 * 3 * 2) - (3.14 * 1.5 * 1.5 * 2) = 56.52 - 14.13 = 42.39$$
 cu in