

CORPURI ROTUNDE – FORMULE UTILE

I. CILINDRUL CIRCULAR DREPT

<i>Aria bazei</i>	<i>Aria laterală</i>	<i>Aria totală</i>	<i>Volumul</i>
$\mathcal{A}_b = \pi R^2$	$\mathcal{A}_l = 2\pi R G$	$\mathcal{A}_t = \mathcal{A}_l + 2\mathcal{A}_b$ $= 2\pi R \cdot (R + G)$	$\mathcal{V} = \mathcal{A}_b \cdot h = \pi R^2 G$

II. CONUL CIRCULAR DREPT

<i>Aria bazei</i>	<i>Aria laterală</i>	<i>Aria totală</i>	<i>Volumul</i>
$\mathcal{A}_b = \pi R^2$	$\mathcal{A}_l = \pi R G$	$\mathcal{A}_t = \mathcal{A}_l + \mathcal{A}_b$ $= \pi R \cdot (R + G)$	$\mathcal{V} = \frac{\mathcal{A}_b \cdot h}{3} = \frac{\pi R^2 \cdot h}{3}$
$u = \frac{R}{G} \cdot 360^\circ$			

III. TRUNCHIUL DE CON CIRCULAR DREPT

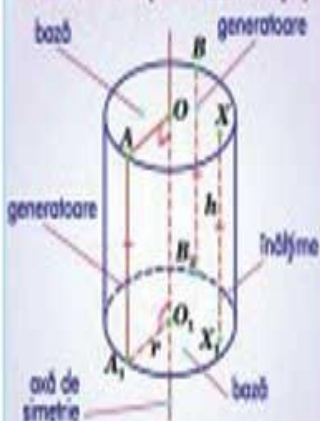
<i>Aria bazei mari</i>	<i>Aria bazei mici</i>	<i>Aria laterală</i>	<i>Aria totală</i>
$\mathcal{A}_b = \pi R^2$	$\mathcal{A}_b = \pi r^2$	$\mathcal{A}_l = \pi g(R + r)$	$\mathcal{A}_t = \mathcal{A}_l + \mathcal{A}_b + \mathcal{A}_B$ $= \pi R \cdot (R + G) + \pi R^2 + \pi r^2$
<i>Volumul</i>		<i>Măsura unghiului la centru</i>	
$\mathcal{V} = \frac{\pi h}{3} \cdot (R^2 + r^2 + r \cdot R)$		$u = \frac{R}{G} \cdot 360^\circ$	
$g^2 = h^2 + (R - r)^2$			

IV. SFERA

<i>Aria sferei</i>	<i>Volumul sferei</i>
$\mathcal{A} = 4\pi R^2$	$\mathcal{V} = \frac{4\pi R^3}{3}$

CORPURI ROTUNDE

CILINDRUL (circular drept)



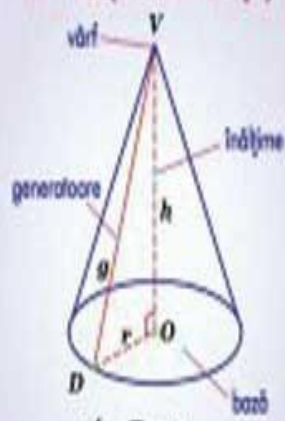
$$A_f = 2\pi \cdot r \cdot h$$

$$A_f = 2\pi \cdot r \cdot (h+r)$$

$$V = \pi \cdot r^2 \cdot h$$

1

CONUL (circular drept)



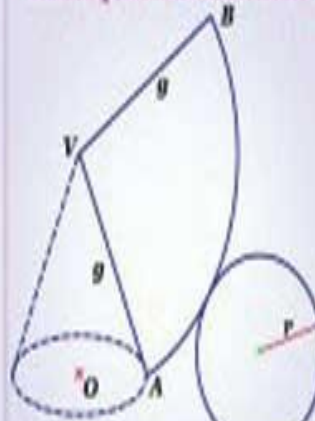
$$A_f = \pi \cdot r \cdot g$$

$$A_f = \pi \cdot r \cdot (r+g)$$

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

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DESFĂȘURAREA CONULUI

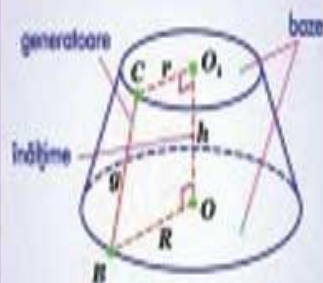


$$m(\angle AVB) = 60^\circ; \quad g = 10 \text{ cm}$$

$$A_f = \square; \quad A_f = \square; \quad V = \square$$

3

TRUNCHIUL DE CON (circular drept)



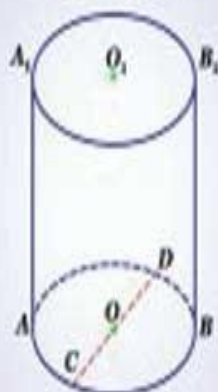
$$A_f = \pi \cdot g \cdot (R+r)$$

$$A_f = \pi \cdot g \cdot (R+r) + \pi \cdot R^2 + \pi \cdot r^2$$

$$V = \frac{\pi \cdot h}{3} \cdot (R^2 + R \cdot r + r^2)$$

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CILINDRUL (circular drept)

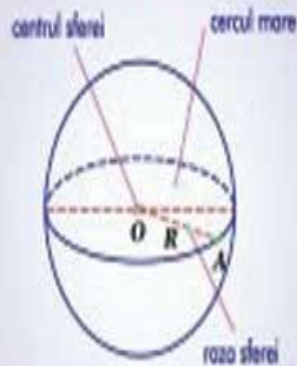


$$|CD| = |AA_1|; \quad \ell_{CD} = 8\pi$$

$$A_f = \square; \quad A_f = \square; \quad V = \square$$

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SFERĂ

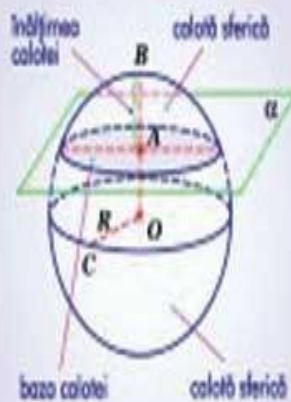


$$A = 4\pi \cdot R^2$$

$$V_{\text{corp. sferic}} = \frac{4}{3} \cdot \pi \cdot R^3$$

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CALOTĂ SFERICĂ

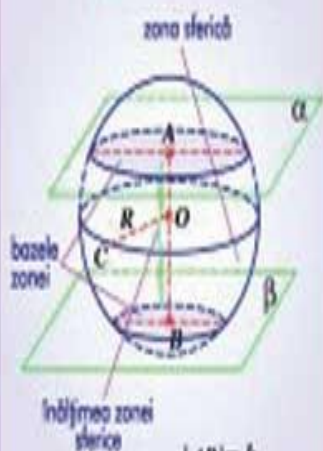


$$|AB| = h$$

$$A = 2\pi \cdot R \cdot h$$

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ZONĂ SFERICĂ



$$|AB| = h$$

$$A = 2\pi \cdot R \cdot h$$

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