


Lezione 27



$VP = 120 \text{ cm}$
 $VH = 200 \text{ cm}$
 $d = 2,17 \frac{\text{g}}{\text{cm}^3}$
 $S_L = ?$
 $V = ?$
 $m = ?$

$AB = \frac{2P}{4} = \frac{1200}{4} = 300 \text{ cm}$
 $A_B = AB^2 = (300 \text{ cm})^2 = 90000 \text{ cm}^2$

$V = \frac{A_B \cdot VH}{3} = \frac{90000 \text{ cm}^2 \cdot 200 \text{ cm}}{3} = 6000000 \text{ cm}^3 = 6000 \text{ dm}^3$

$d = \frac{m}{V} \Rightarrow m = d \cdot V = 2,17 \frac{\text{g}}{\text{cm}^3} \cdot 6000000 \text{ cm}^3 = 13020000 \text{ g} = 13020 \text{ kg}$

$S_L = S_L + A_B$
 $S_L = p \cdot VH$
 $VH = \sqrt{VH^2 + HH^2} = \sqrt{(200 \text{ cm})^2 + (120 \text{ cm})^2} = \sqrt{40000 + 14400} = \sqrt{54400} = 233,24 \text{ cm}$

$S_L = p \cdot VH = 600 \text{ cm} \cdot 233,24 \text{ cm} = 139944 \text{ cm}^2$
 $S_L = S_L + A_B = 139944 \text{ cm}^2 + 90000 \text{ cm}^2 = 229944 \text{ cm}^2$



$VH = 48 \text{ cm}$
 $VH = 52 \text{ cm}$
 $S_L = ?$
 $m = ?$
 $d = 2,3 \frac{\text{g}}{\text{cm}^3}$

$HH = \sqrt{VH^2 - VP^2} = \sqrt{(52 \text{ cm})^2 - (48 \text{ cm})^2} = \sqrt{2704 \text{ cm}^2 - 2304 \text{ cm}^2} = \sqrt{400 \text{ cm}^2} = 20 \text{ cm}$

$AB = 2 \cdot HH = 2 \cdot 20 \text{ cm} = 40 \text{ cm}$
 $A_B = AB^2 = (40 \text{ cm})^2 = 1600 \text{ cm}^2$
 $S_L = p \cdot VH = 2 \cdot AB \cdot VH = 2 \cdot 40 \text{ cm} \cdot 52 \text{ cm} = 4160 \text{ cm}^2$
 $S_L = A_B + S_L = 1600 \text{ cm}^2 + 4160 \text{ cm}^2 = 5760 \text{ cm}^2$
 $V = \frac{1}{3} \cdot A_B \cdot VH = \frac{1}{3} \cdot 1600 \text{ cm}^2 \cdot 52 \text{ cm} = 27733,33 \text{ cm}^3$
 $m = V \cdot d = 27733,33 \text{ cm}^3 \cdot 2,3 \frac{\text{g}}{\text{cm}^3} = 63786,67 \text{ g}$

SOLIDI DI ROTAZIONE

