

Solid Mensuration

Frustum, Prismatoid & Truncated Prism

I. Frustum (Regular Pyramid)

A. Definition

B. Parts

1. Base, b
2. Altitude, h
3. Slant Height, l

C. Area

$$A = \frac{1}{2}(a_1 + a_2)l$$

$$LSA = \frac{1}{2}(P_1 + P_2)l$$

D. Volume

$$V = \frac{h}{3}(A_1 + A_2 + \sqrt{A_1 A_2})$$

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I. Frustum (Right Circular Cone)

$$LSA = \frac{l}{2}(C_1 + C_2) = \pi(r_1 + r_2)l$$

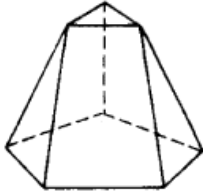
$$V = \frac{h}{3}(A_1 + A_2 + \sqrt{A_1 A_2})$$

$$= \frac{\pi}{3}h(r_1^2 + r_2^2 + r_1 r_2)$$

Solid Mensuration

Frustum, Prismatoid & Truncated Prism

II. Prismatoid
A. Definition
B. Volume

$$V = \frac{h}{6}(A_1 + A_2 + 4M)$$


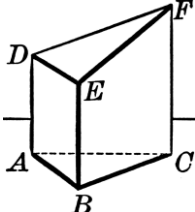
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III. Truncated Prism / Cylinder
A. Definition
B. Volume

Truncated Prism $V = Rm$
Truncated Regular Prism $V = Bm$
Truncated Cylinder $V = Rm$
 $m = (e_1 + e_2)/2$



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Ex#1. p128 No. 1
Ex#2. p128 No. 3
Ex#3. p128 No. 5
Ex#4. p128 No. 6

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