REVIEW Chapter 11

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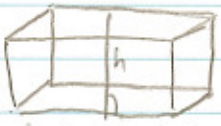
Euler's FORMULA

$F + V = E + 2$

Faces + vertices = edges + 2

° ℓ = slant height
° B = area of base

PRISM



Lateral area = Perimeter of base x height $LA = ph$
Surface area = Lateral area + 2 base $SA = LA + 2B$
Volume = Base x height $V = Bh$

CYLINDER

Lateral area = $2\pi rh$ -OR- πdh
Surface area = $L.A + 2B$ -OR- $L.A. + 2\pi r^2$
Volume = $\pi r^2 \cdot h$

PYRAMID

Lateral area = $\frac{1}{2}p\ell$
Surface area = $L.A + B$
Volume = $\frac{1}{3}Bh$ -OR- $\frac{1}{3}\pi r^2 \cdot h$

CONE

Lateral area = $\pi r\ell$
Surface area = $L.A + B$ -OR- $L.A + \pi r^2$
VOLUME = $\frac{1}{3}\pi r h$

° slant height → regular height = Pythagorean theorem

oblique PRISM 

[extra]