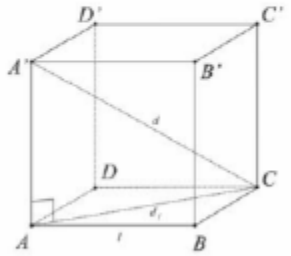
# FORMULE - CORPURI GEOMETRICE

## I. POLIEDRE

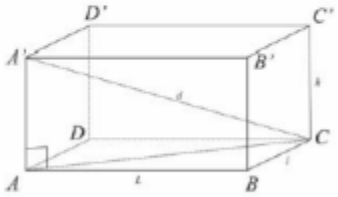
### CUBUL




$A_l = 4l^2;\ A_t = 6l^2;\ V = l^3$

$d_f = l\sqrt{2};\ d = l\sqrt{3}$

### PARALELIPIPEDUL DREPTUNGHIC

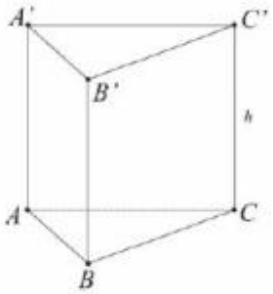



$A_t = 2\cdot(L\cdot l + L\cdot h + l\cdot h);\ V = L\cdot l\cdot h$

$d = \sqrt{L^2 + l^2 + h^2}$

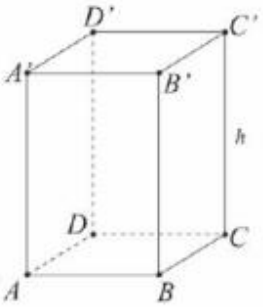
### PRISMA REGULATĂ

#### TRIUNGHIULARĂ



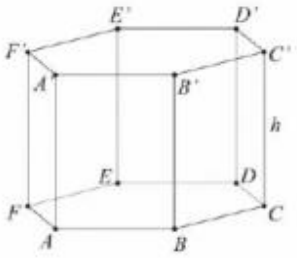

$A_l = P_b \cdot h$

#### PATRULATERĂ




$A_t = A_l + 2\cdot A_b$

#### HEXAGONALĂ




$V = A_b \cdot h$

**Al**= aria laterala;

**At**=aria totala;

**V**=volumul;

**d**=diagonala figurii; **df**= diagonala unei fete laterale;

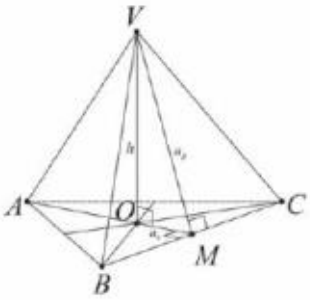
**Pb**=perimetrul bazei;

**Ab**=aria bazei

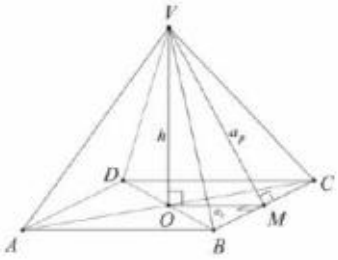
**h**=inaltimea

## PIRAMIDA REGULATĂ

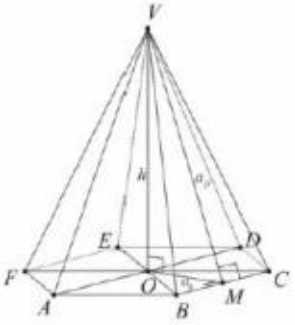
**TRIUNGHIULARĂ**




**PATRULATERĂ**



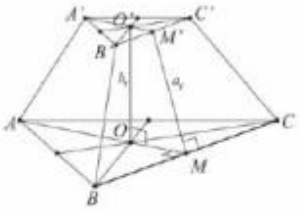

**HEXAGONALĂ**



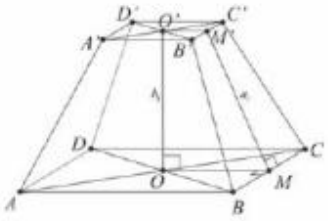

$$A_l = \frac{P_b \cdot a_p}{2} \qquad A_t = A_l + A_b \qquad V = \frac{A_b \cdot h}{3}$$

## TRUNCHIUL DE PIRAMIDĂ REGULATĂ

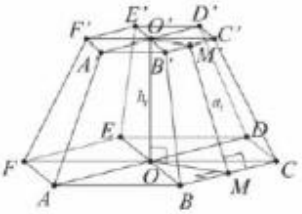
**TRIUNGHIULARĂ**




**PATRULATERĂ**




**HEXAGONALĂ**




$$A_l = \frac{(P_B + P_b) \cdot a_t}{2} \qquad A_t = A_l + A_B + A_b \qquad V = \frac{h_t}{3} \cdot \left(A_B + A_b + \sqrt{A_B \cdot A_b}\right)$$

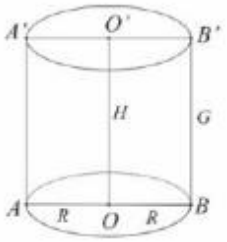
**Al**= aria laterala; **At**=aria totala; **V**=volumul; **d**=diagonala figurii; **df**= diagonala unei fețe **ap**=apotema piramidei; **Pb**=perimetrul bazei; **Ab**=aria bazei

***trunchiului de piramida***

*Ab*=aria bazei mici; *AB*=aria bazei mari; *Pb*=perimetrul bazei mici; *PB*=perimetrul bazei mari; *at*=apotema trunchiului de piramida;

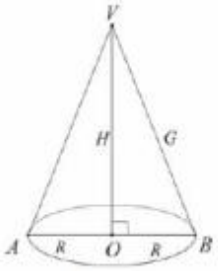
## II. CORPURI ROTUNDE

### CILINDRUL



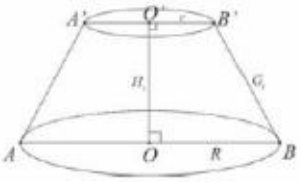

$$A_l = 2\pi RG$$
$$A_t = 2\pi R(G+R)$$
$$V = \pi R^2 H$$

### CONUL



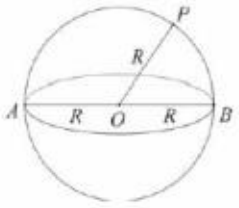

$$A_l = \pi RG$$
$$A_t = \pi R(G+R)$$
$$V = \frac{\pi R^2 H}{3}$$

### TRUNCHIUL DE CON




$$A_l = \pi G_t(R+r)$$
$$A_t = \pi G_t(R+r) + \pi R^2 + \pi r^2$$
$$V = \frac{\pi H_t}{3}\left(R^2 + r^2 + Rr\right)$$

### SFERA




$$A = 4\pi R^2$$
$$V = \frac{4\pi R^3}{3}$$

**R**= raza; **G**=generatoare; **H**=inaltime; **Al**= aria laterala; **At**=aria totala; **V**=volumul

**r**= raza bazei mici; **R**=raza bazei mari; **Gt**=generatoarea trunchiului; **Ht**= inaltimea trunchiului;