



Prismas - II

Matemática

Professor Baiano

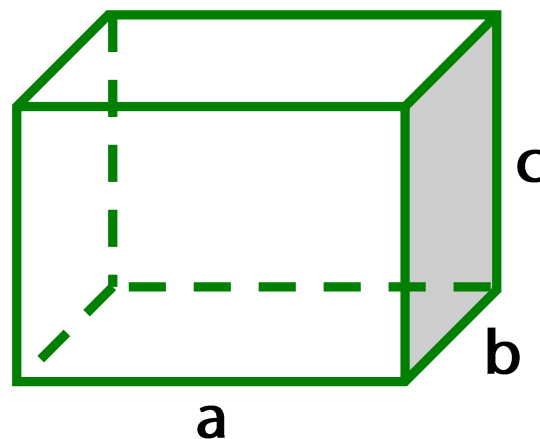
Paralelepípedo

Paralelepípedo

Prisma cujas bases são paralelogramos.

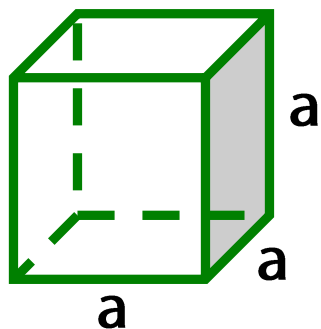
Paralelepípedo Retângulo ou Ortoedro

Prisma cujas bases são retângulos.



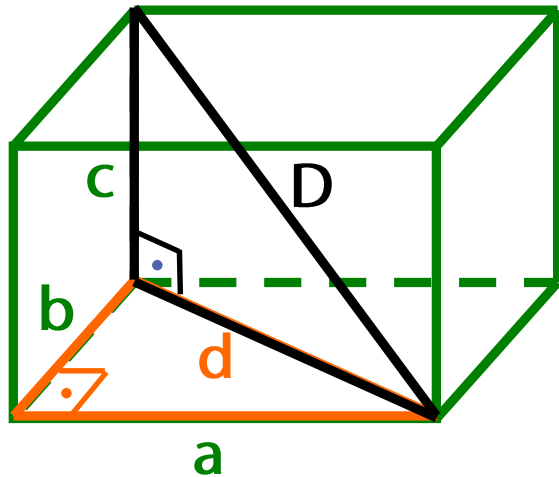
Cubo

Paralelepípedo retângulo cujas arestas são congruentes ou paralelepípedo reto de bases quadradas.



Diagonais

Paralelepípedo



$$d^2 = a^2 + b^2$$

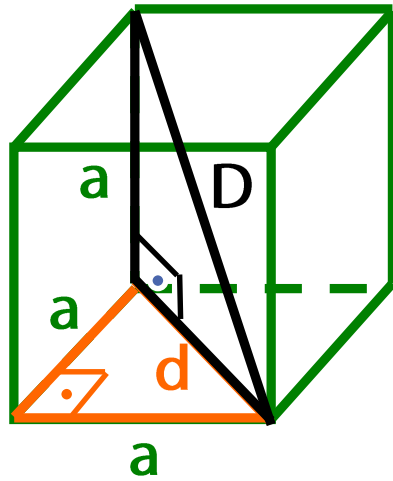
$$2 \quad 2 \quad 2$$

$$2 \quad 2 \quad 2 \quad 2$$

$$\sqrt{2^2 + 2^2 + 2^2}$$

Diagonais

Cubo



$$a^2 + a^2 = d^2$$

$$2a^2 = d^2$$

$$D^2 = a^2 + d^2$$

$$a^2 + 2a^2 = D^2$$

$$D = \sqrt{3a^2}$$

Prismas Especiais

Dimensões em Estado Especial

$$\text{PA} - (x - r, x, x + r) \quad \text{PG} - \left(\frac{x}{q}, x, x \cdot q \right)$$

$$\text{Consecutivos} - (x, x + 1, x + 2)$$

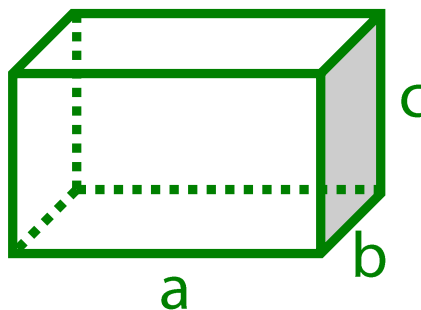
$$\text{Proporcionais} \quad \frac{a}{x} = \frac{b}{y} = \frac{c}{z} = k$$

$$\text{Inversamente Proporcionais} \quad a \cdot x = b \cdot y = c \cdot z = k$$

Prismas Especiais

Áreas e Volumes de um Prisma

Paralelepípedo



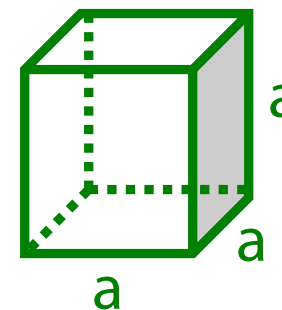
Área :

$$A_t = 2.(a.b + a.c + b.c)$$

Volume :

$$V_p = a.b.c$$

Cubo



$$A_t = 6.a^2$$

$$V_c = a^3$$