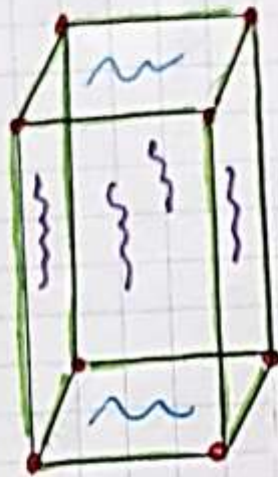


Volumen

Espacio ocupado por un cuerpo.

Prismas

Dany Rivera



Partes de un Prisma.

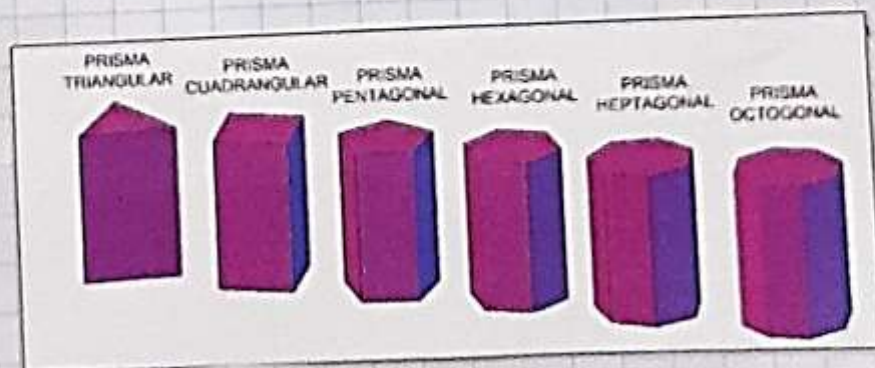
Aristas

Vértices

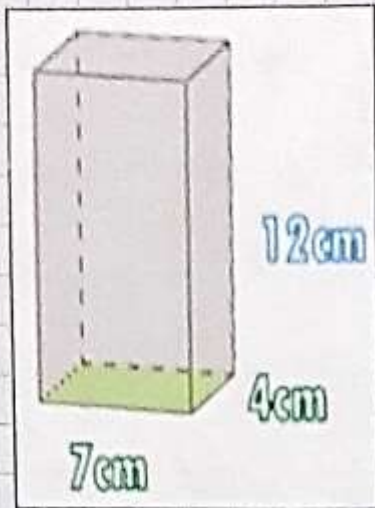
4 Caras laterales

Bases 2

Un prisma por su número de lados puede ser:



Ejemplos



$$V = A_b \times h_c$$

$$A_b = 1 \times 1$$

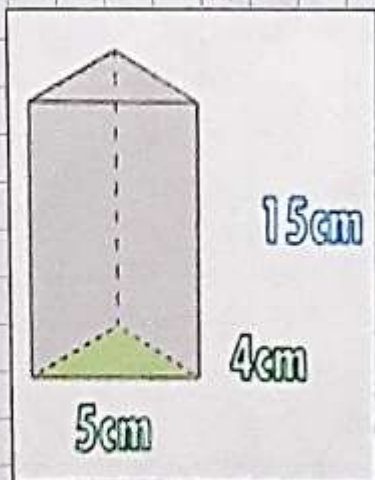
$$A_b = 7 \times 4$$

$$A_b = 28 \text{ cm}^2$$

$$V = 28 \times 12$$

$$V = 336 \text{ cm}^3$$

Dany Rivero.



$$V = A_b \times h_c$$

$$A_b = \frac{b \times h}{2}$$

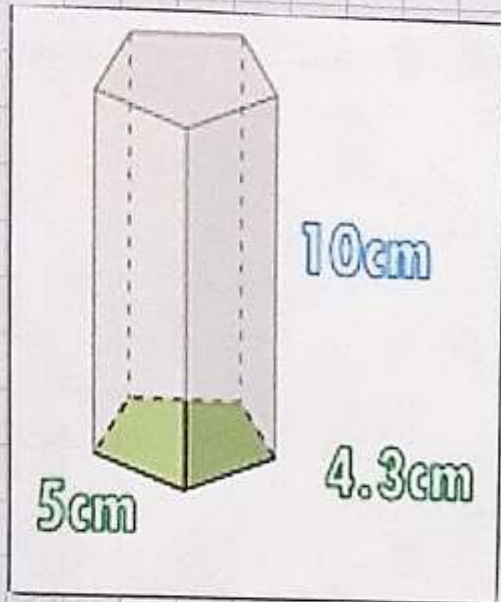
$$A_b = \frac{5 \times 4}{2}$$

$$A_b = 10 \text{ cm}^2$$

$$V = 10 \times 15$$

$$V = 150 \text{ cm}^3$$

Dany Rivera.



$$V = Ab \times hc$$

$$Ab = \frac{P \times a}{2}$$

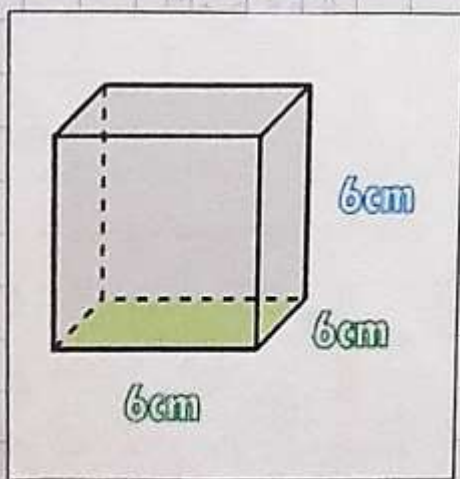
$$Ab = \frac{25 \times 4.3}{2}$$

$$Ab = 53.7 \text{ cm}^2$$

$$V = 53.7 \times 10$$

$$V = 53.7 \times 10$$

$$V = 537 \text{ cm}^3$$



$$V = Ab \times hc$$

$$Ab = 1 \times 1$$

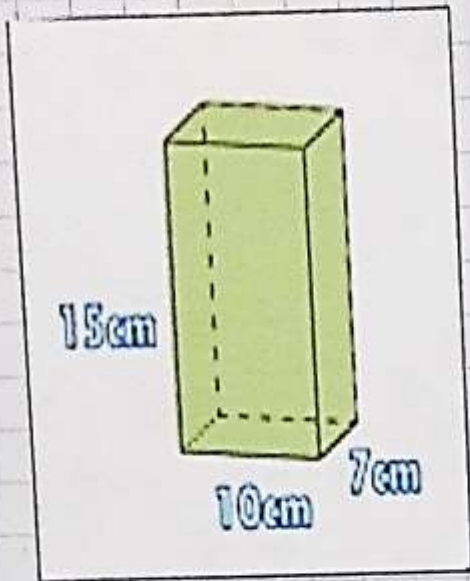
$$Ab = 6 \times 6$$

$$Ab = 36 \text{ cm}^2$$

$$V = 36 \times 6$$

$$V = 216 \text{ cm}^3$$

Ejercicios.



$$V = Ab \times hc$$

$$Ab = L \times L$$

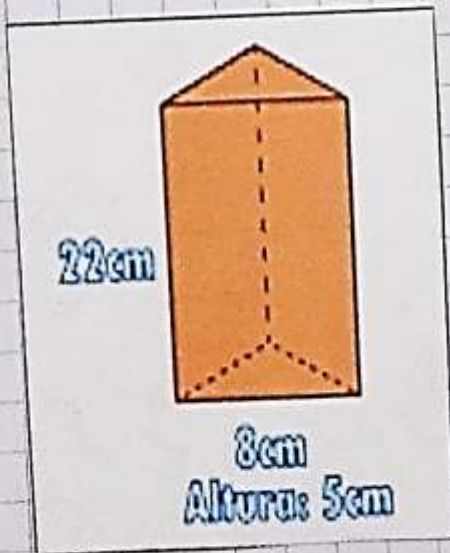
$$Ab = 10 \times 7$$

$$Ab = 70 \text{ cm}^2$$

$$V = 70 \times 15$$

$$V = 1,050 \text{ cm}^3$$

Dany Rivera.



$$V = Ab \times hc$$

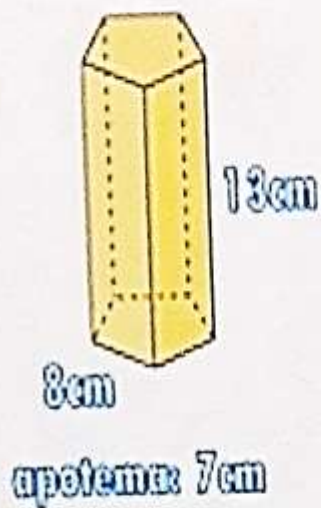
$$Ab = \frac{b \times h}{2}$$

$$Ab = \frac{8 \times 5}{2}$$

$$Ab = 20 \text{ cm}^2$$

$$V = 20 \times 22$$

$$V = 440 \text{ cm}^3$$



$$V = Ab \times hc$$

$$Ab = \frac{P \times a}{2} \quad (\text{Perímetro} = 40)$$

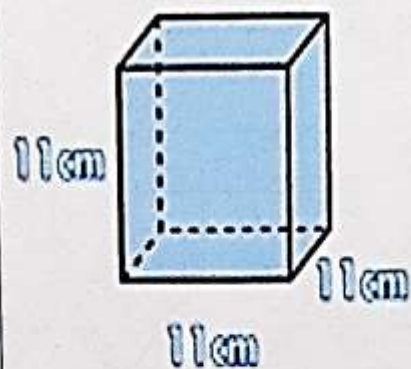
$$Ab = \frac{40 \times 7}{2}$$

$$Ab = 140 \text{ cm}^2$$

$$V = 140 \times 13$$

$$V = 1820 \text{ cm}^3$$

Dany Rivera.



$$V = Ab \times hc$$

$$Ab = L \times L$$

$$Ab = 11 \times 11$$

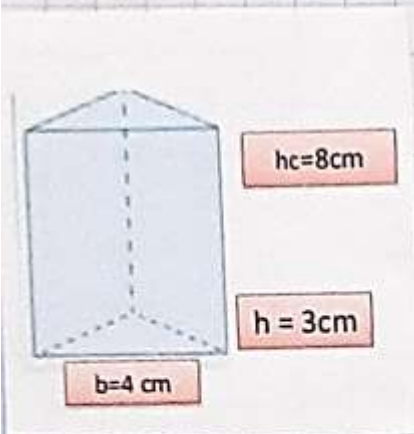
$$Ab = 121 \text{ cm}^2$$

$$V = 121 \times 11$$

$$V = 1331 \text{ cm}^3$$

Tema: Volumen

Indicaciones: Nombrar que prisma es y encontrar su volumen, siempre debe dejar procedimiento y darle la medida a la figura en su Cuaderno.



Prisma Triangular

$$V = Ab \times hc$$

$$Ab = \frac{b \times h}{2}$$

$$Ab = \frac{4 \times 3}{2}$$

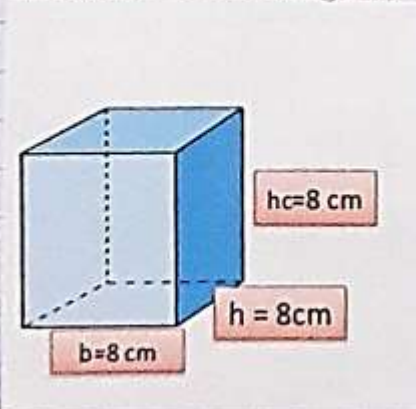
$$Ab = 6\text{ cm}^2$$

$$V = 6 \times 8$$

$$V = 48\text{ cm}^3$$

7.5

Prisma Cuadrangular



$$V = Ab \times hc$$

$$Ab = 1 \times 1$$

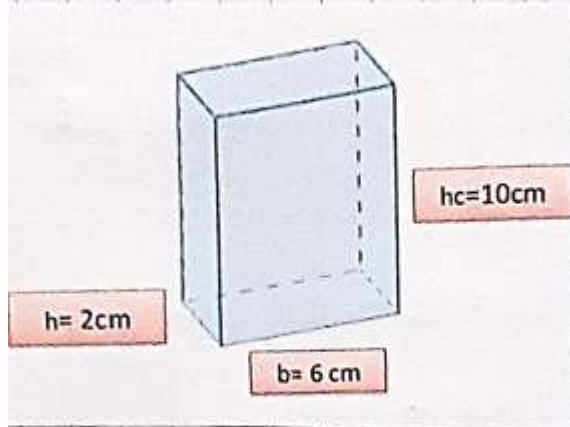
$$Ab = 8 \times 8$$

$$Ab = 64\text{ cm}^2$$

$$V = 64 \times 8$$

$$V = 512\text{ cm}^3$$

Prisma Rectangular



$$V = Ab \times hc$$

$$Ab = L \times L$$

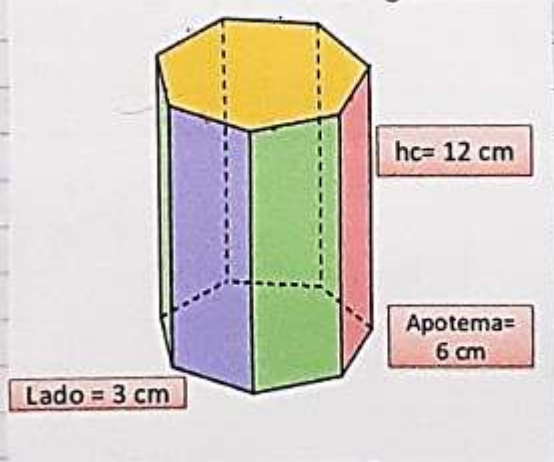
$$Ab = 6 \times 2$$

$$Ab = 12\text{ cm}^2$$

$$V = 12 \times 10$$

$$V = 120\text{ cm}^3$$

Prisma Heptagonal



$$V = Ab \times hc$$

$$Ab = \frac{P \times a}{2}$$

$$(P = 21\text{ cm})$$

$$Ab = \frac{21 \times 6}{2}$$

$$= Ab = 63\text{ cm}^2$$

$$V = 63 \times 12$$

$$V = 756\text{ cm}^3$$



Lado = 2 cm

hc = 9 cm

Apotema = 5 cm

Prisma Octagonal

$$V = Ab \times hc$$

$$Ab = \frac{P \times a}{2}$$

$$(P = 16)$$

$$Ab = \frac{16 \times 5}{2}$$

$$Ab = 40 \text{ cm}^2$$

P.R.

$$V = 40 \times 9$$

$$V = 360 \text{ cm}^3$$