

Áreas y Perímetros de polígonos

Cuadrado

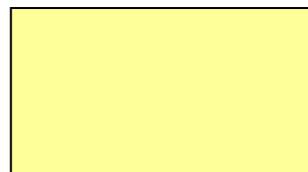


a (lado)

$$A = a^2$$

$$P = 4 a$$

Rectángulo



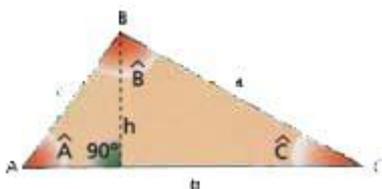
a (altura)

b (base)

$$A = a \cdot b$$

$$P = 2 a + 2 b$$

Triángulo



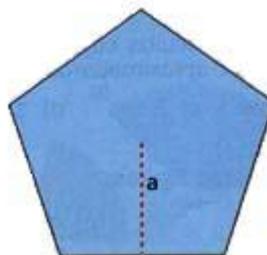
$$A = \frac{b \cdot h}{2}$$

P = Suma de los lados
b (base) y h (altura)

Recuerda que en un triángulo rectángulo tenemos el teorema de Pitágoras $b^2 + c^2 = a^2$



Polígono regular

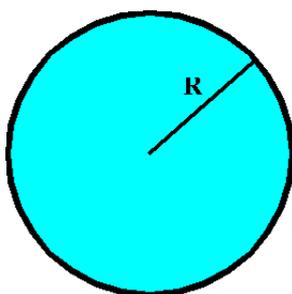


$$A = \frac{n \cdot b \cdot a}{2}$$

$$P = n \cdot b$$

b (lado) - a (apotema) y n = n° de lados

Círculo



$$A = \pi R^2$$

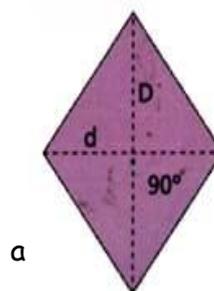
$$P = 2 \pi R$$

Siendo R el radio y $\pi = 3'14$

$$A_{\text{sector}} = \frac{\pi R^2 n}{360} \text{ siendo } n \text{ el ángulo}$$

$$P_{\text{sector}} = \frac{\pi R n}{180} + 2R \text{ siendo } n \text{ el ángulo}$$

Rombo



$$A = \frac{D \cdot d}{2}$$

$$P = 4 a \text{ (lado)}$$

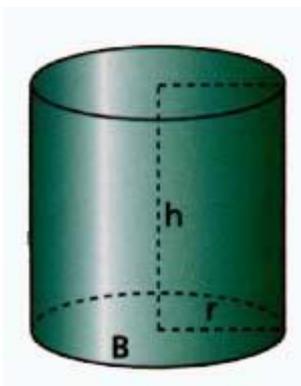
D la diagonal mayor y d la diagonal menor

Falta el trapecio $A = \frac{(B + b) \cdot h}{2}$

Hacer la descomposición para calcular el área total

Volumen de las figuras geométricas

Cilindro

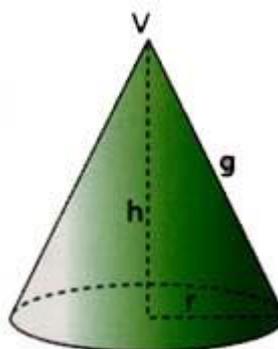


$$A_T = 2\pi r h + 2\pi r^2$$

$$V = \pi r^2 h$$

r (radio) y h (altura)

Cono

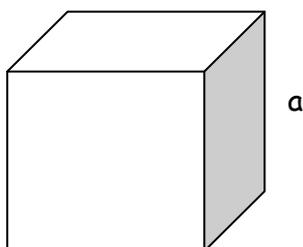


$$A_T = \pi r g + \pi r^2$$

$$V = \frac{\pi r^2 h}{3}$$

r (radio) y h (altura)

Cubo (hexaedro)

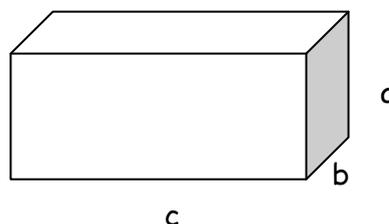


$$A_T = 6 a^2$$

$$V = a^3$$

a (lado)

Paralelepípedo (ortoedro)

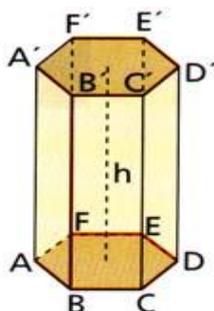


$$A_T = 2 a b + 2 a c + 2 b c$$

$$V = a b c$$

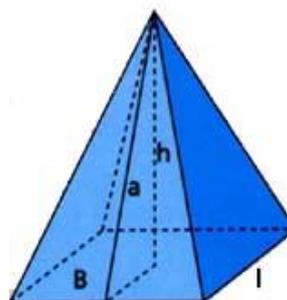
a, b y c (lados)

Prisma



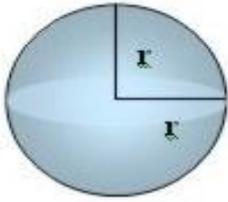
$$V = A_{base} \cdot h$$

Pirámide



$$V = \frac{1}{3} A_{base} \cdot h$$

Esfera



$$V = \frac{4}{3} \pi r^3$$

$$A_T = 4 \pi r^2$$