SAN FELIPE NERI
Cádiz
COLEGIOS MARIANISTAS

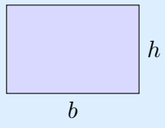
FÓRMULAS DE GEOMETRÍA

Figuras planas y cuerpos geométricos

4.º ESO

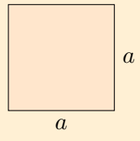
FIGURAS PLANAS (2D)

RECTÁNGULO



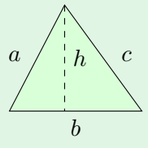
Perímetro: $P = 2(b + h)$
Área: $A = bh$

CUADRADO



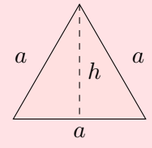
Perímetro: $P = 4a$
Área: $A = a^2$

TRIÁNGULO



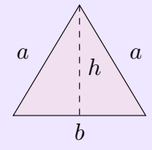
Perímetro: $P = a + b + c$
Área: $A = \dfrac{bh}{2}$

TRIÁNGULO EQUILÁTERO



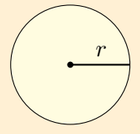
Perímetro: $P = 3a$
Altura (Pitágoras):
$h = \sqrt{a^2 - (a/2)^2}$
$h = \dfrac{a\sqrt{3}}{2}$
Área: $A = \dfrac{a^2\sqrt{3}}{4}$

TRIÁNGULO ISÓSCELES



Perímetro: $P = 2a + b$
Altura (Pitágoras):
$h = \sqrt{a^2 - (b/2)^2}$
Área: $A = \dfrac{bh}{2}$

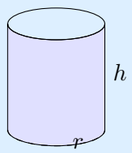
CÍRCULO



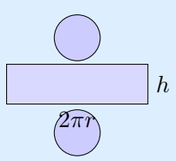
Perímetro: $P = 2\pi r$
Área: $A = \pi r^2$

CUERPOS GEOMÉTRICOS (3D)

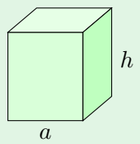
CILINDRO



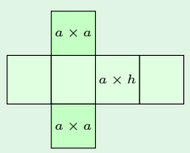
Área con dos tapas: $A_T = 2\pi r^2 + 2\pi rh$
Área sin tapa superior: $A_S = \pi r^2 + 2\pi rh$
Volumen: $V = \pi r^2 h$
Desarrollo plano (con dos tapas)



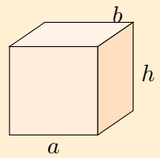
PRISMA DE BASE CUADRADA



Área con tapa: $A_T = 2a^2 + 4ah$
Área sin tapa superior: $A_S = a^2 + 4ah$
Volumen: $V = a^2 h$
Desarrollo plano (con tapa)



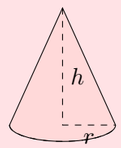
PRISMA DE BASE RECTANGULAR



Volumen: $V = abh$

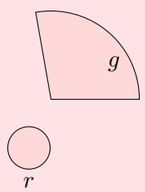
a y b: lados de la base rectangular.
h: altura del prisma.

CONO

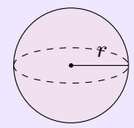


Volumen: $V = \dfrac{1}{3}\pi r^2 h$

Desarrollo plano (lateral y base)



ESFERA



Volumen: $V = \dfrac{4}{3}\pi r^3$

La esfera no tiene un desarrollo plano exacto sin deformaciones.