

Cuerpos Geométricos

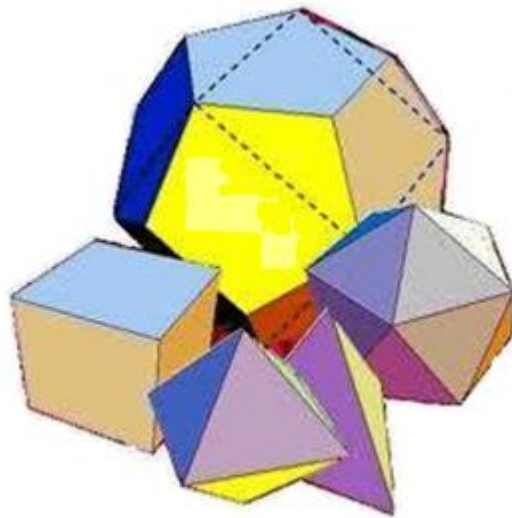
Eddy Rubem Alcalde Rumiche

Asesor de Ciencias

2011 – 2012

IEFAP. “José E. Velarde Vargas”

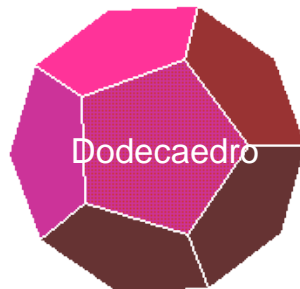
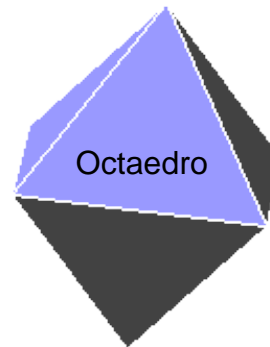
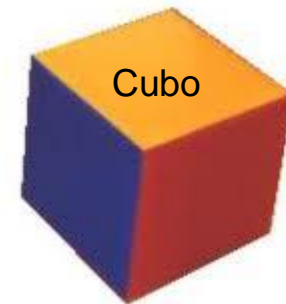
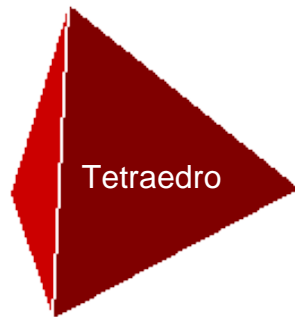
Talara - Perú



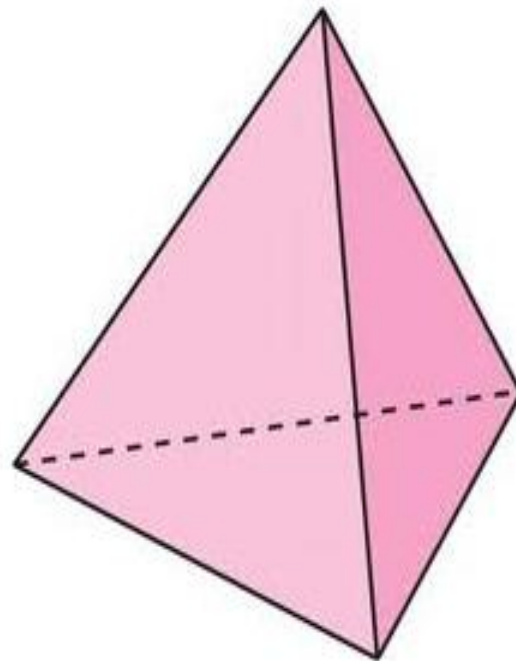
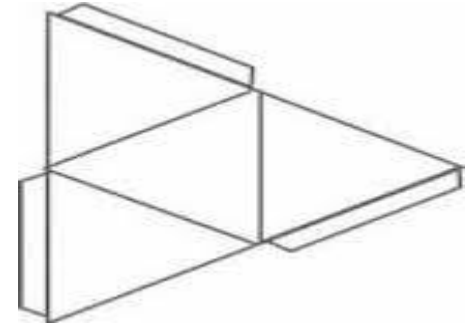
Cuerpo Geométrico.- Es una figura geométrica de tres dimensiones: largo, ancho y alto.

Los cuerpos geométricos se clasifican de la siguiente manera: Poliedros y Cuerpos Redondos.

Los poliedros.- Son cuerpos geométricos cuyas caras son polígonos.



TETRAEDRO



VÉRTICES: 4

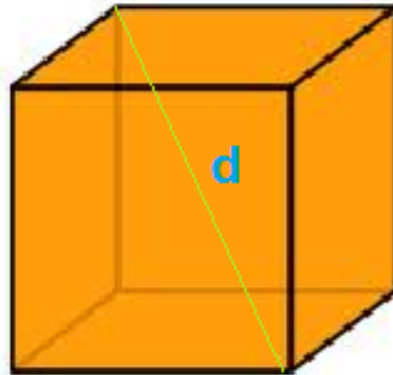
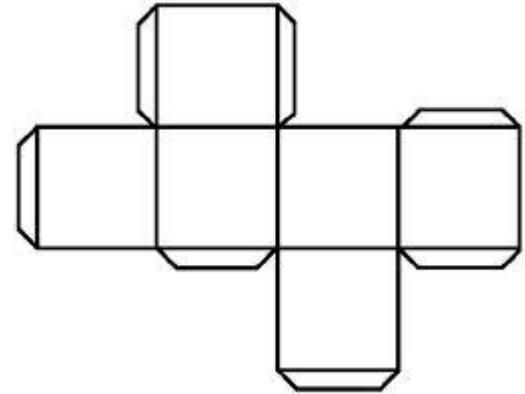
ARISTAS: 6

CARAS: 4

ÁREA = $1,732 \times a^2$

VOLUMEN = $(1,414/12) \times a^3$

CUBO



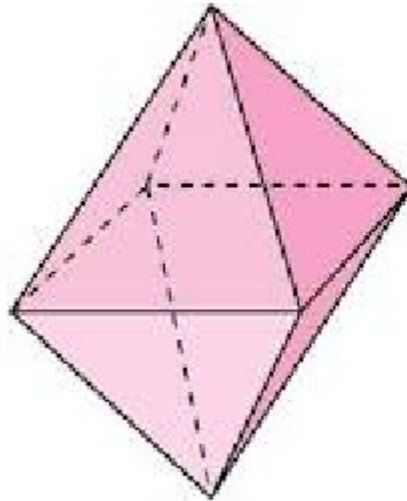
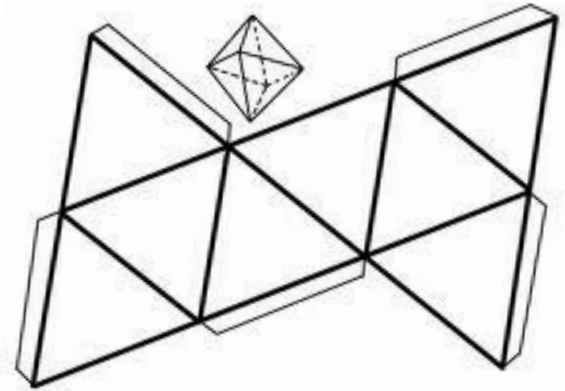
VÉRTICES = 8
ARISTAS = 12
CARAS = 6

ÁREA LATERAL = $4 \times a^2$

ÁREA TOTAL = $6 \times a^2$

DIAGONAL = $1,732 \times a$

OCTAEDRO



VÉRTICES: 6

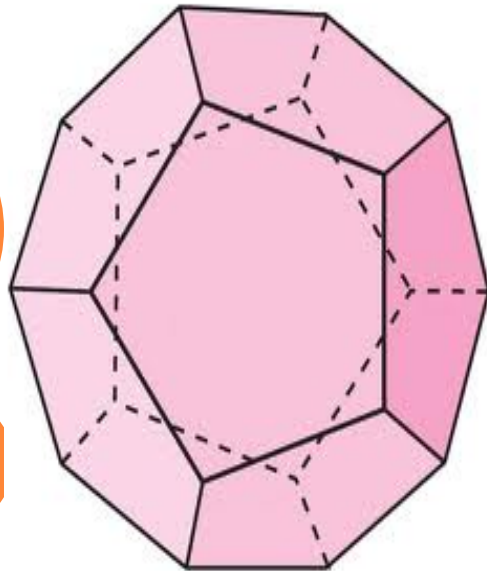
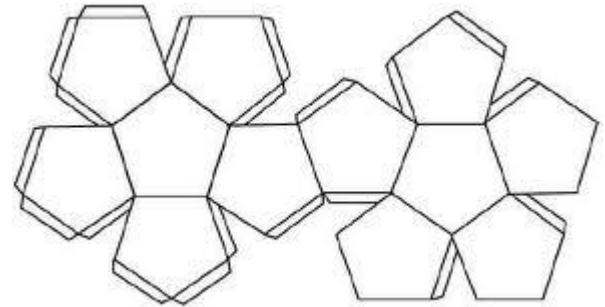
ARISTAS: 12

CARAS: 8

$$\text{ÁREA} = 2 \times 1,732 \times a^2$$

$$\text{Volumen} = (1,414/3) \times a^3$$

DODECAEDRO



Vértices = 20

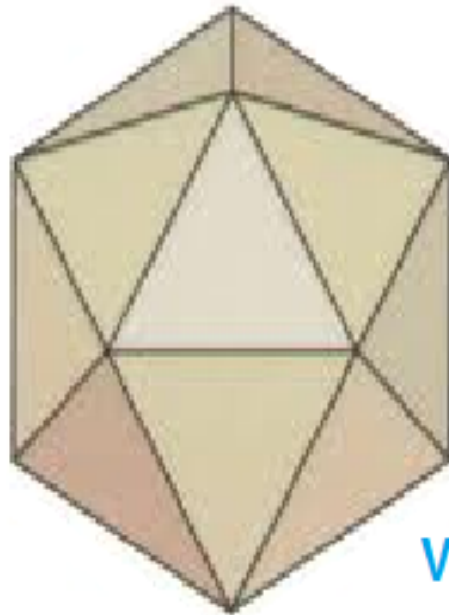
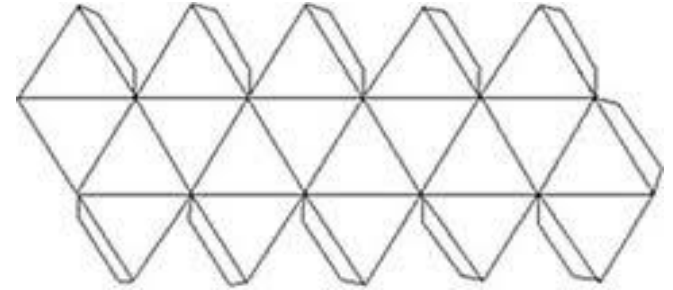
Aristas = 30

Caras = 12

Área = $30 \cdot a \cdot ap$

Volumen = $(1/4) \cdot (15 + 7 \cdot 2,2360) \cdot a^3$

ICOSAEDRO



VÉRTICES= 12

ARISTAS = 30

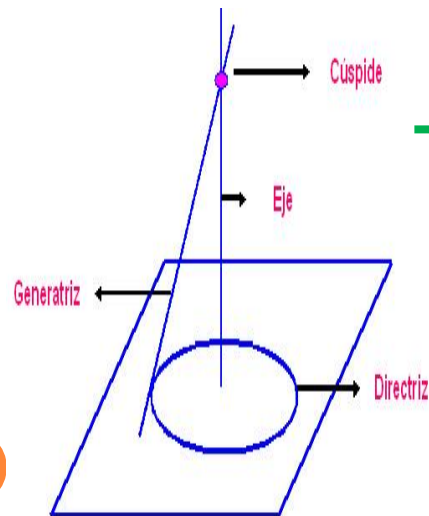
CARAS = 20

Área = $5 \times 1,732 \times a^2$

Volumen = $(5/12)(3 + 2,236) \times a^3$

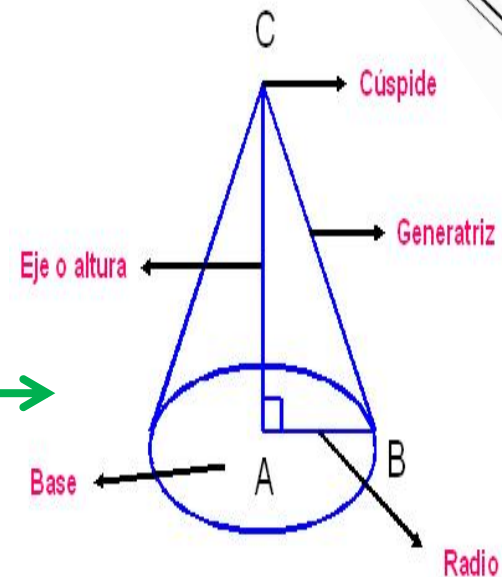
Cuerpos Redondos.- Los cuerpos redondos sus cara son curvas. Se obtiene al girar una figura plana alrededor de un eje.

CONO



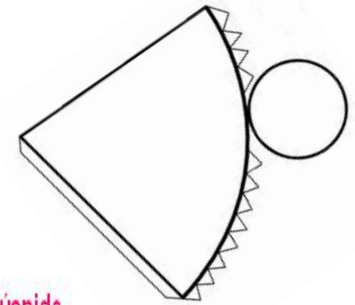
$$A_T = \pi \cdot r \cdot (g + r)$$

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

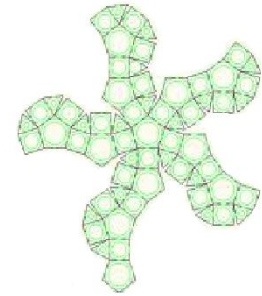
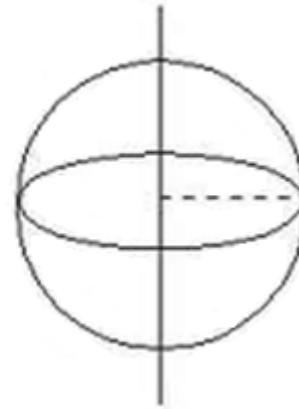


$$g^2 = r^2 + h^2$$

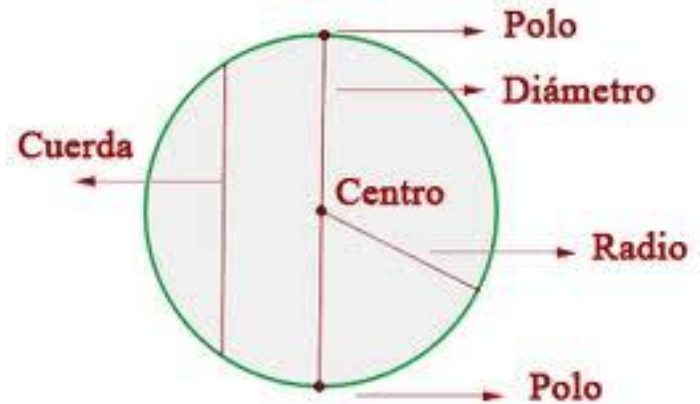
$$A_L = \pi \cdot r \cdot g$$



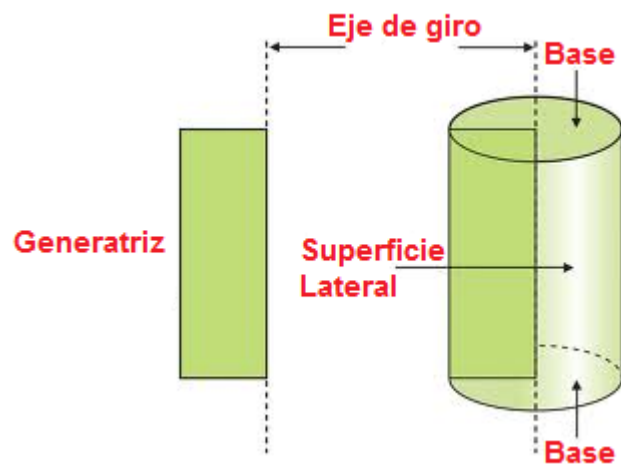
ESFERA



ÁREA: $4 \pi r^2$
VOLUMEN: $\frac{4}{3} \pi r^3$



CILINDRO



$$g = h$$

$$A_L = 2 \cdot \pi \cdot r \cdot h$$

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

