

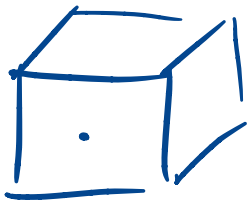


## Tipos de lenguajes:

- Imperativo → No estructura jerárquica. Es dinámico
- Lógicos
- Funcionales

## Práctica

$$\begin{array}{c} \text{Siempre} \\ \downarrow \\ (3, 2, 1, 1) \times (4 \times 4) = (1 \times 4) \\ 1 \times 4 \end{array}$$
$$\downarrow$$
$$(x, y, z, w)$$



$$\begin{array}{l} \downarrow \\ x + 320 \\ y + 187 \end{array}$$

$$\begin{array}{c} \updownarrow 187 \\ \longleftrightarrow 320 \end{array}$$

$$M = M_1 \times M_2 \times M_3$$

$$\begin{array}{ccc} \downarrow & \downarrow & \downarrow \\ M_1 & M_2 & M_3 \text{ rotacio} \\ \text{Objeto} & \text{Translacio} & \end{array}$$

• Inicia - Patrons  
 ↳ Set Prop

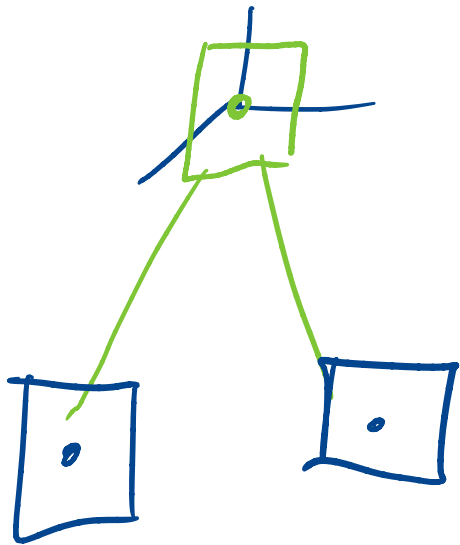
• Atoms  
 ↳ Cubes  
 Prisma  
 ...

nom  
 Color  
 ⇒ M. Transformació  
 ↳ (Patron)

} Propietats

Figures (Cub1, Cub2, Poli)

- Rotar respecto al eje X

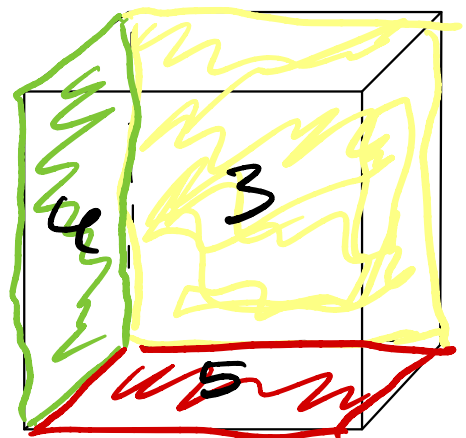
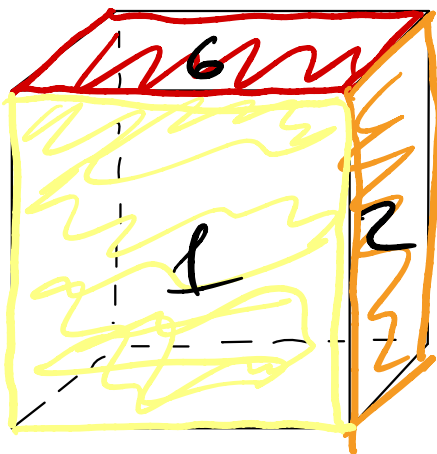
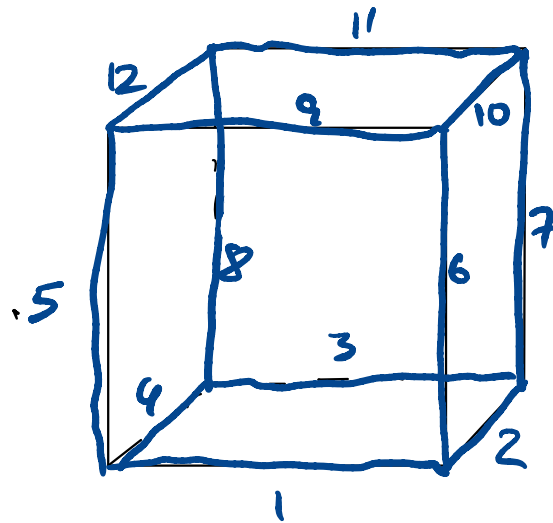
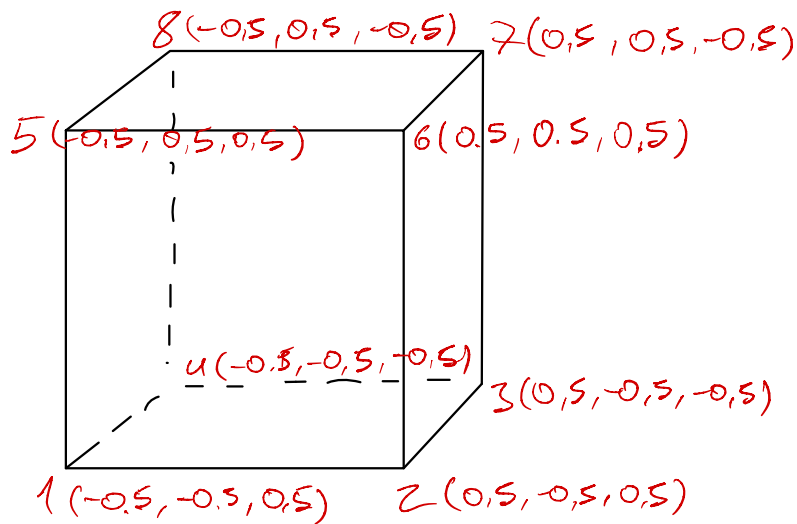
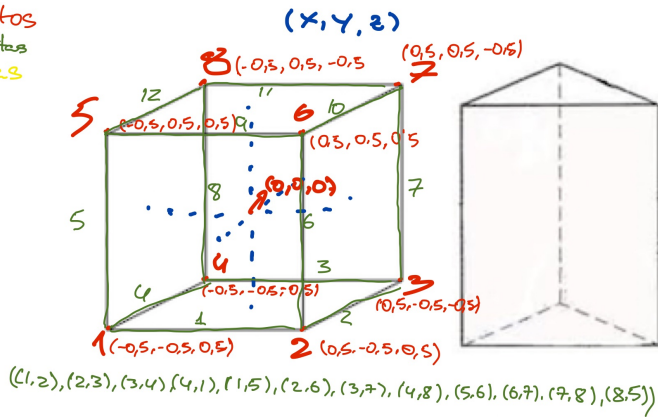


$$\begin{pmatrix} 1 & 2 \\ -3 & 0 \end{pmatrix} \begin{pmatrix} 3 & 5 \\ 4 & 1 \end{pmatrix} = \begin{pmatrix} 1 \cdot 3 + 2 \cdot 4 & 1 \cdot 5 + 2 \cdot 1 \\ -3 \cdot 3 + 0 \cdot 4 & -3 \cdot 5 + 0 \cdot 1 \end{pmatrix}$$

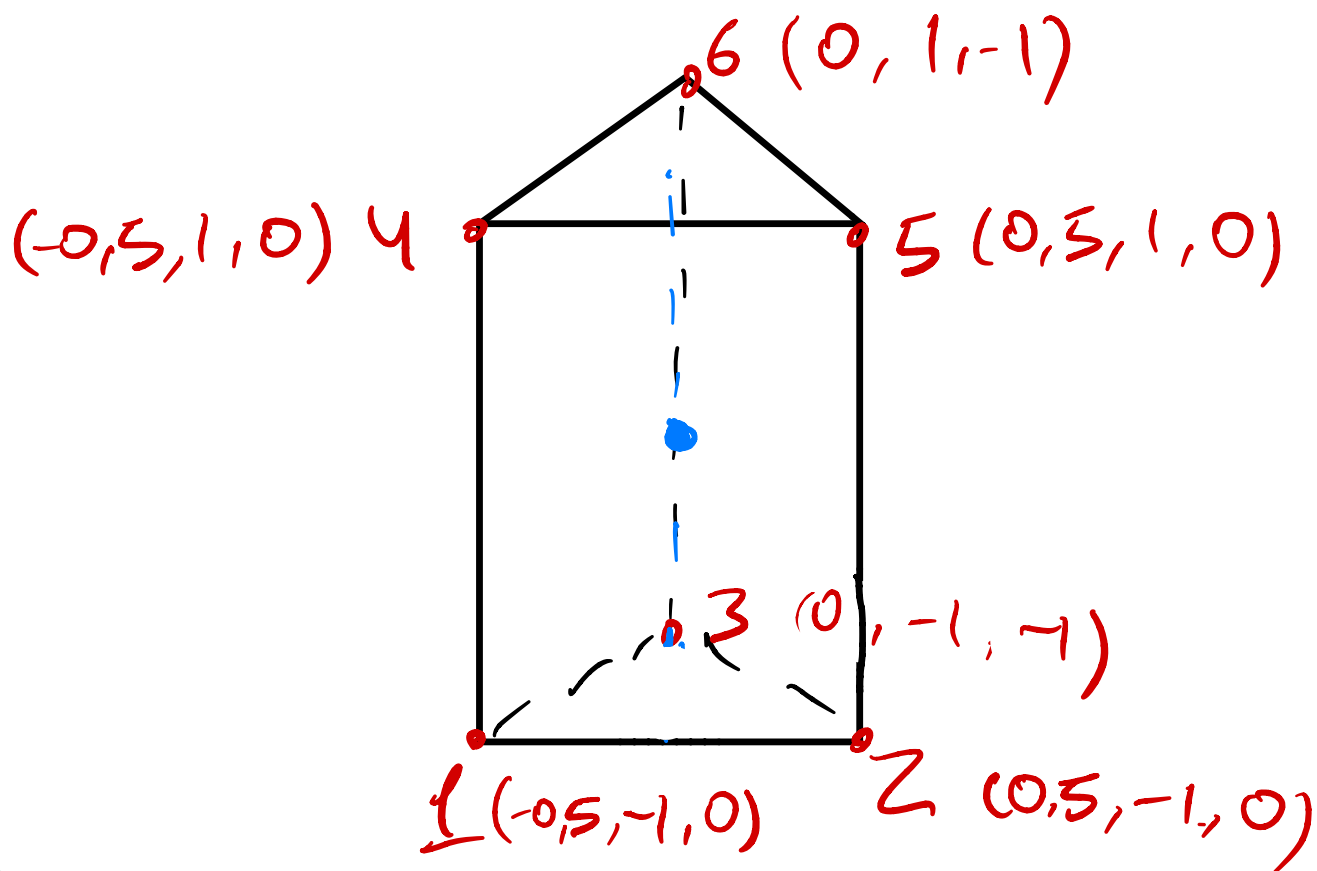
↓ Transpuesta  
 Por que son listas

$$\begin{pmatrix} 1 & 2 \\ -3 & 0 \end{pmatrix} \begin{pmatrix} 3 & 4 \\ 5 & 1 \end{pmatrix} =$$

- Pontos
- Aristas
- Caras



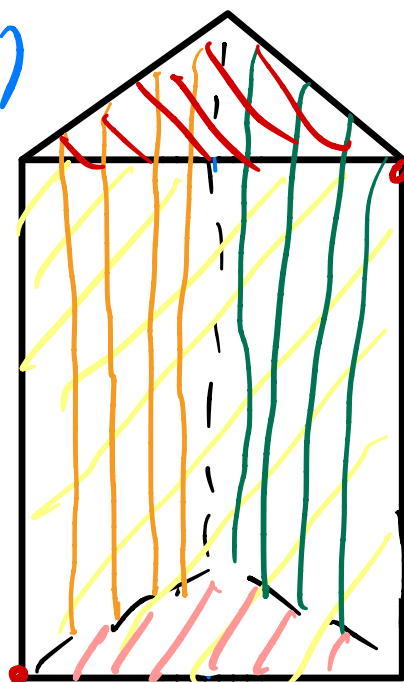
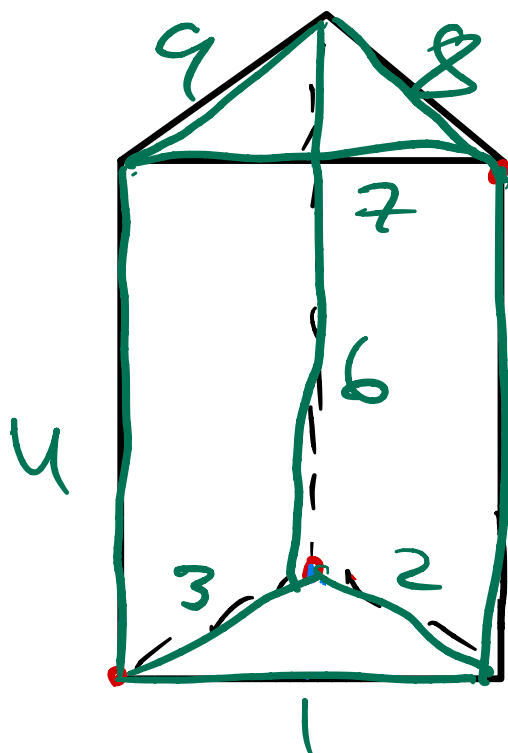
$(1, 2, 6, 5)$   $(2, 3, 7, 6)$   $(3, 4, 8, 7)$   $(4, 1, 5, 8)$   
 $(1, 2, 3, 4)$   $(5, 6, 7, 8)$



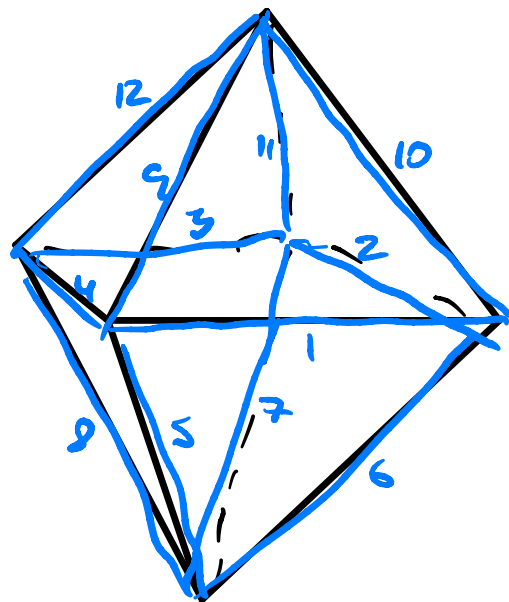
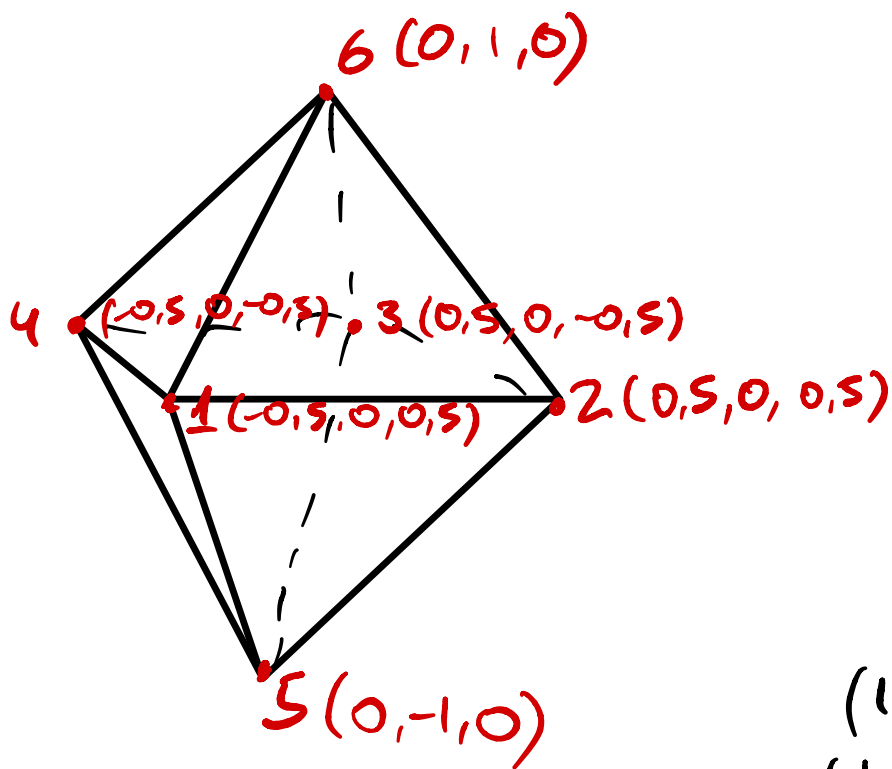
$(1, 2) (2, 3) (3, 1) (1, 4) (2, 5) (3, 6) (4, 5) (5, 6)$   
 $(6, 4)$

$(1, 2, 5, 4) (2, 3, 6, 5)$

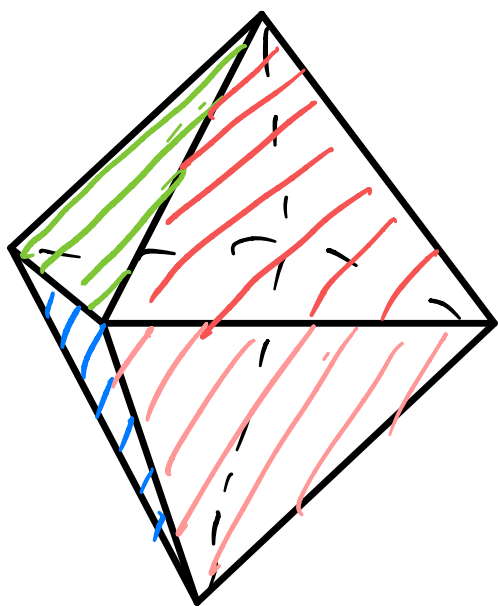
$(1, 3, 6, 4)$   
 $(1, 2, 3)$   
 $(4, 5, 6)$



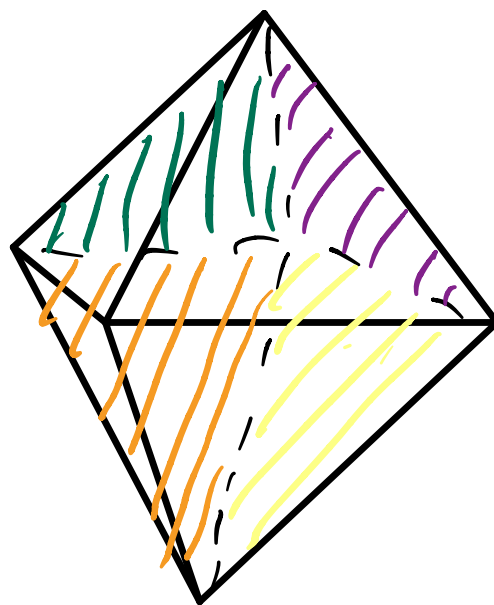
1  
2  
3  
4  
5



(1, 2) (2, 3) (3, 4) (4, 1)  
 (1, 6) (2, 6) (3, 6) (4, 6)  
 (1, 5) (2, 5) (3, 5) (4, 5)



1 2  
 4 3  
 8 6  
 5 7



(1, 2, 6) (2, 3, 6) (3, 4, 6) (4, 1, 6)  
 (1, 2, 5) (2, 3, 5) (3, 4, 5) (4, 1, 5)