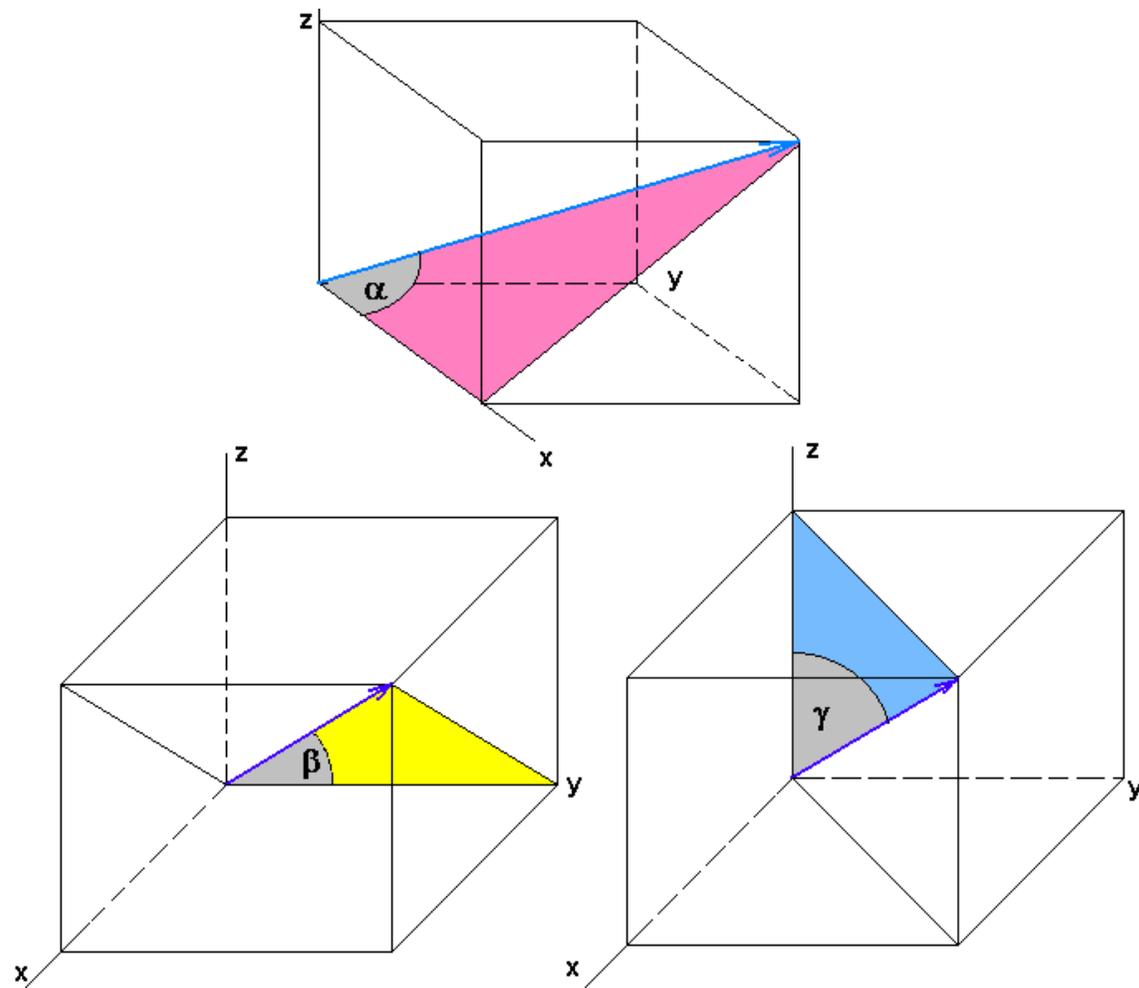


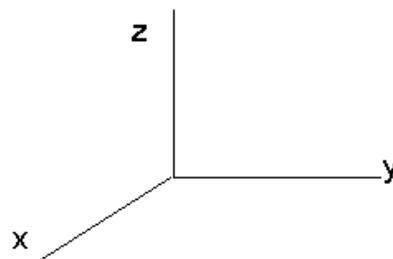
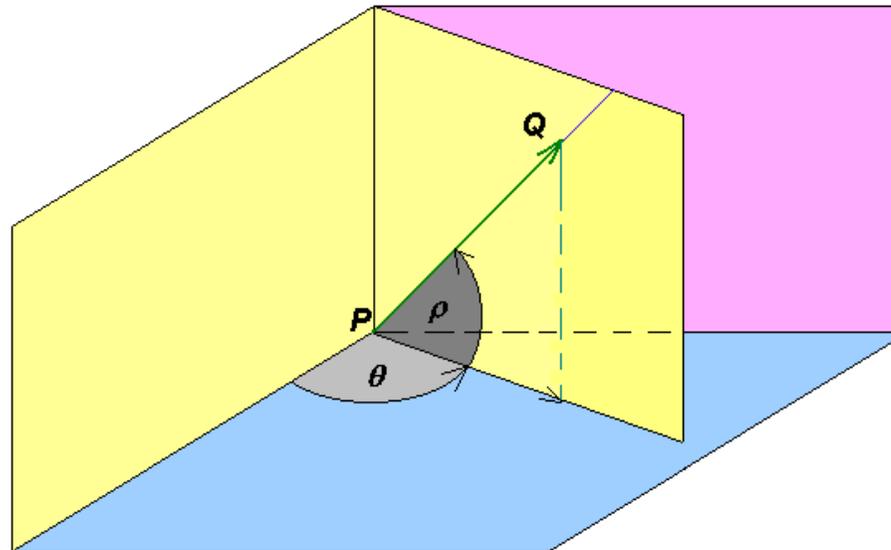
Segmentos dirigidos en el espacio tridimensional

M. Sc. Sebastián Castañeda H.

Angulos directores



Angulos directores



Equivalencia de segmentos dirigidos

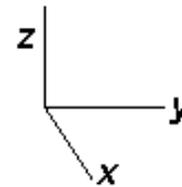
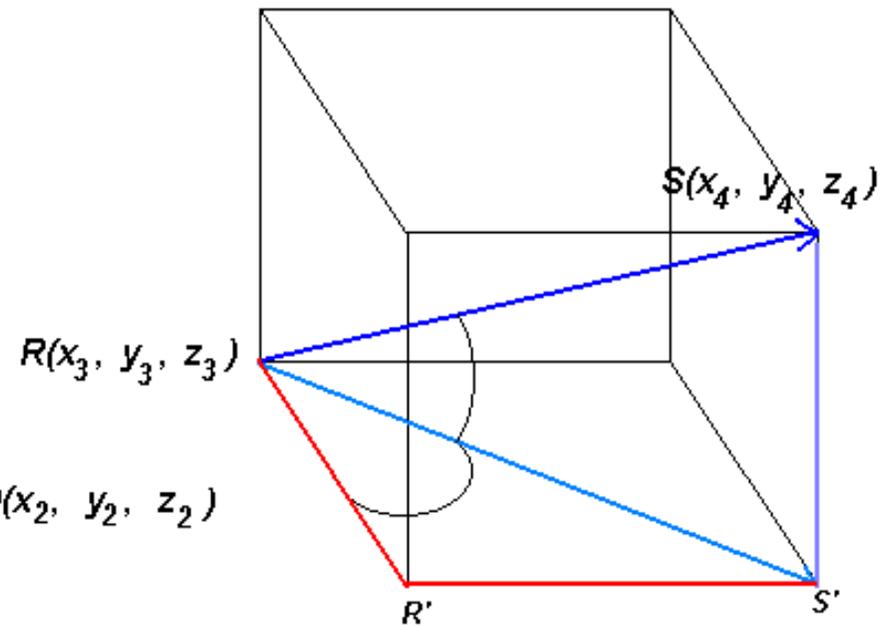
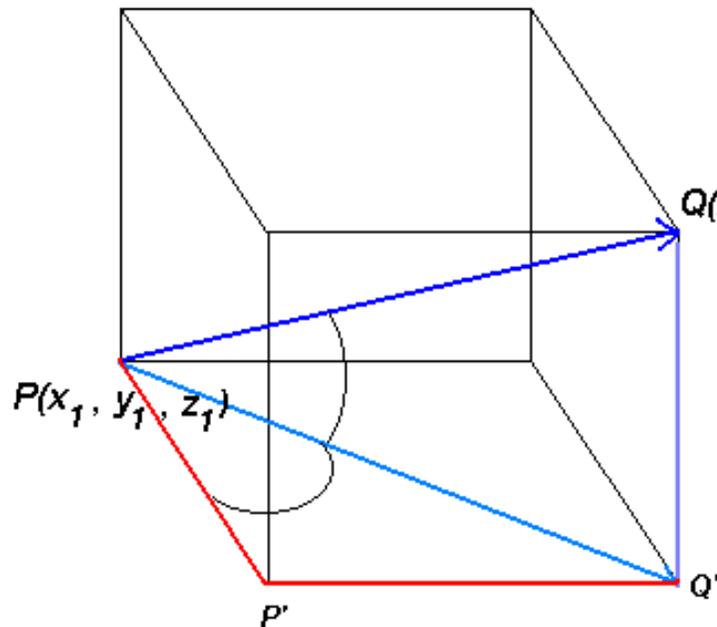
$$x_2 - x_1 = x_4 - x_3$$

$$y_2 - y_1 = y_4 - y_3$$

$$z_2 - z_1 = z_4 - z_3$$

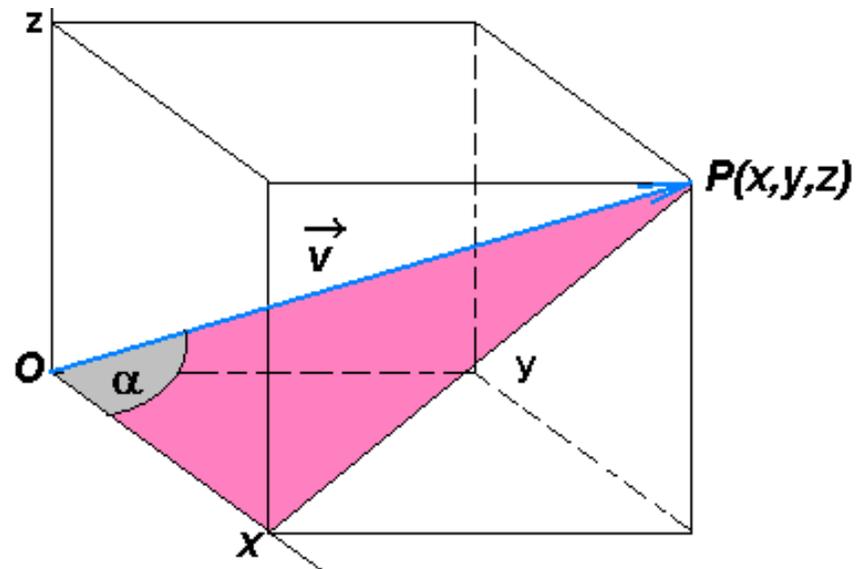
$$\triangle PQQ' \cong \triangle RSS'$$

$$\triangle PP'Q' \cong \triangle RR'S'$$



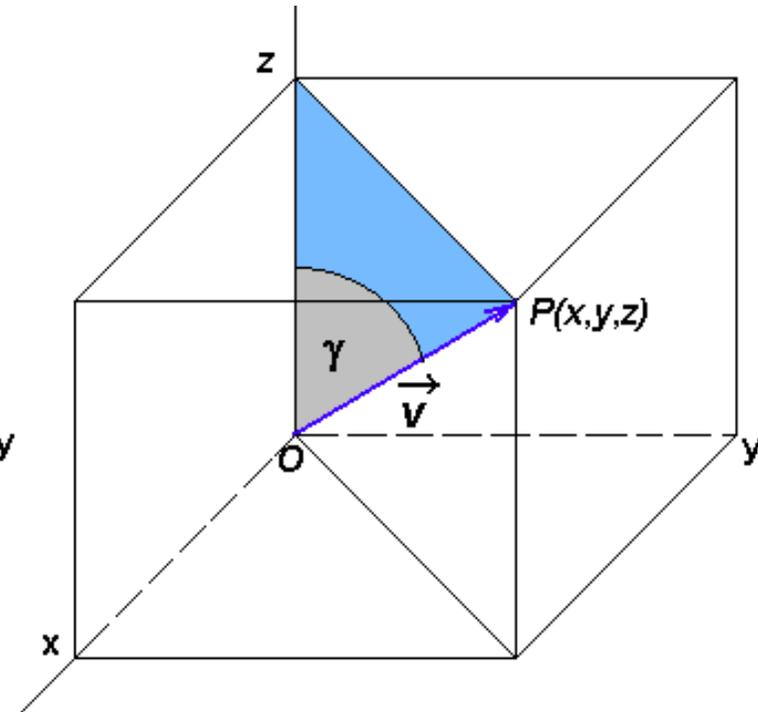
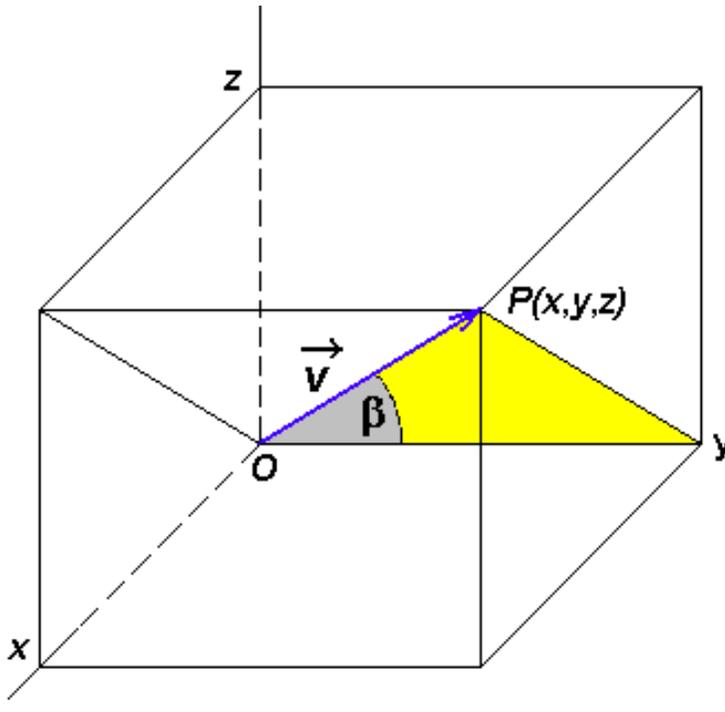
Representante regular

Suponemos $\vec{v} = (x, y, z) \neq (0, 0, 0)$



$$\|\vec{v}\| = \sqrt{x^2 + y^2 + z^2}$$
$$x = \|\vec{v}\| \cos(\alpha)$$

Representante regular



$$y = \|\vec{v}\| \cos(\beta)$$

$$z = \|\vec{v}\| \cos(\gamma)$$