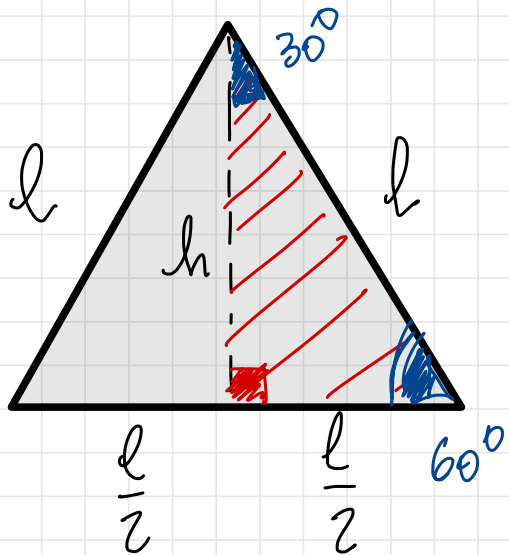


FUNZIONI GONIOMETRICHE DI ANGOLI PARTICOLARI



ANGOLO $\alpha = \frac{\pi}{6}$?

PREMESSA : IL TRIANGOLO EQUILATERO



$$h^2 = l^2 - \frac{l^2}{4} \rightarrow h = \sqrt{\frac{4l^2 - l^2}{4}}$$

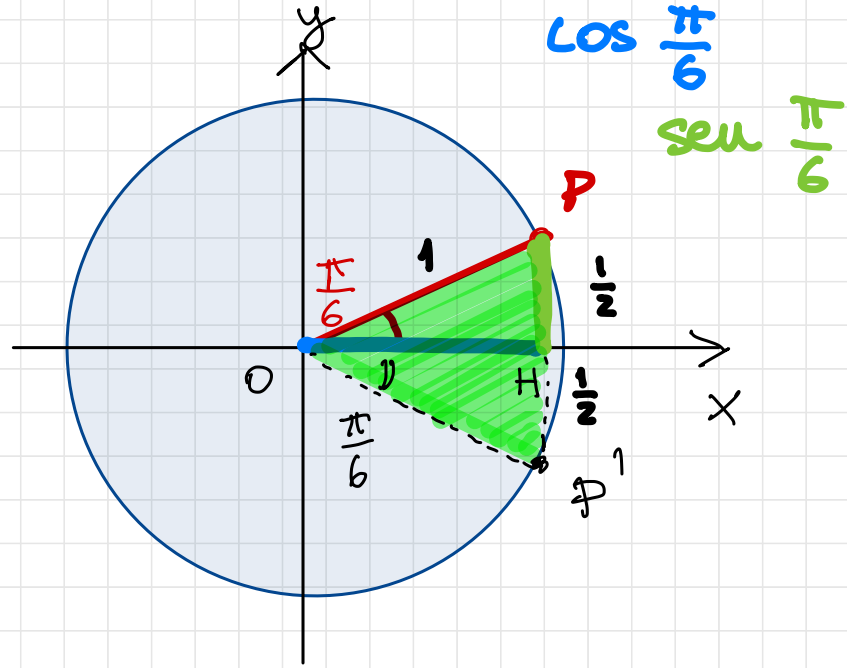
\rightarrow $h = l \frac{\sqrt{3}}{2}$

$$\overline{OH} = h$$

$$\overline{OH} = 1 \frac{\sqrt{3}}{2}$$

$$\overline{OH} = \frac{\sqrt{3}}{2} \quad \bullet$$

$$\overline{PH} = \frac{1}{2} \quad \bullet$$



$$\sin \frac{\pi}{6} = \frac{1}{2}$$

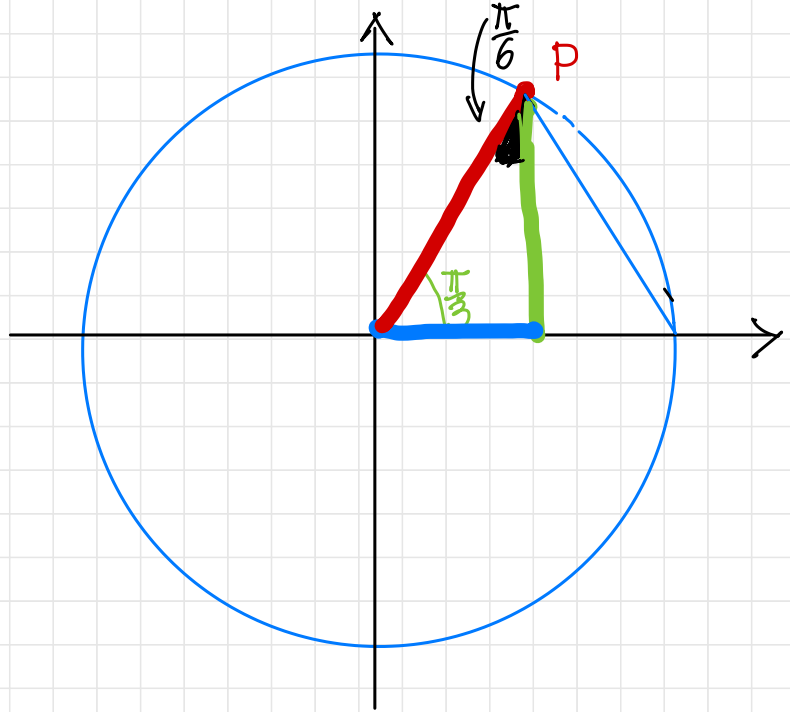
$$\cos \frac{\pi}{6} = \frac{\sqrt{3}}{2}$$

$$\text{ANGOLO } \alpha = \frac{\pi}{3}$$

$$h = \frac{l \sqrt{3}}{2}$$

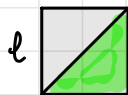
$$\text{sen } \frac{\pi}{6} = \frac{\sqrt{3}}{2}$$

$$\text{cos } \frac{\pi}{6} = \frac{1}{2}$$



ANGOLO $\alpha = \frac{\pi}{4}$

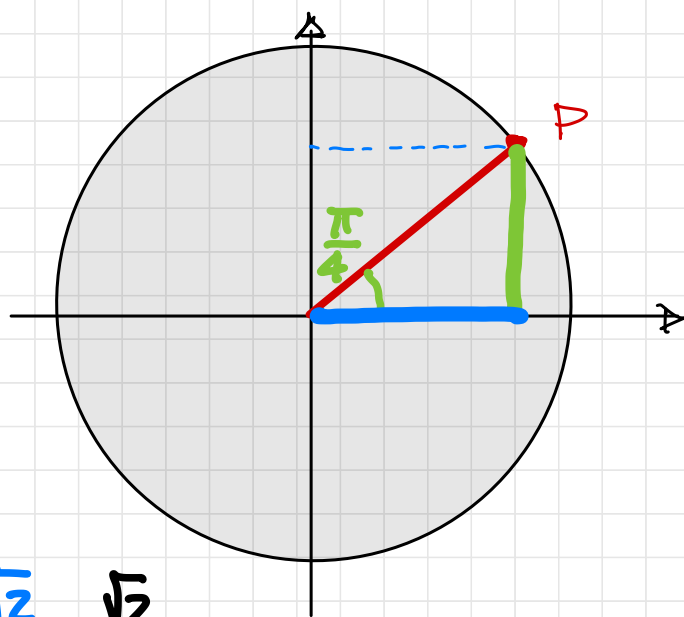
È UN QUADRATO



$$d = \sqrt{2} \ell$$

× PITAGORA

$$\cos \frac{\pi}{4} = ?$$



$$1 = \sqrt{2} \ell$$

↑
diagonale

$$\rightarrow \ell = \frac{1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

$$\cos \frac{\pi}{4} = \frac{\sqrt{2}}{2}$$

$$\sin \frac{\pi}{4} = \frac{\sqrt{2}}{2}$$

$$\operatorname{tg} \frac{\pi}{6} = \frac{\sin \frac{\pi}{6}}{\cos \frac{\pi}{6}} = \frac{\cancel{1}}{\cancel{\sqrt{3}}} = \frac{1}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \boxed{\frac{\sqrt{3}}{3}}$$

$$\operatorname{tg} \frac{\pi}{3} = \frac{\sin \frac{\pi}{3}}{\cos \frac{\pi}{3}} = \frac{\cancel{\sqrt{3}}}{\cancel{1}} = \boxed{\sqrt{3}}$$

$$\operatorname{tg} \frac{\pi}{4} = \frac{\sin \frac{\pi}{4}}{\cos \frac{\pi}{4}} = \frac{\frac{\sqrt{2}}{2}}{\frac{\sqrt{2}}{2}} = \boxed{1}$$