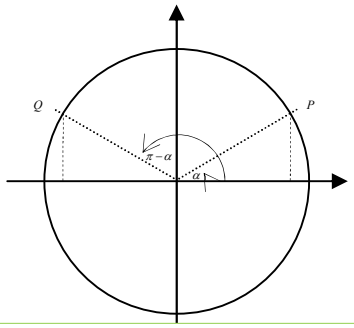
Equazioni Goniometriche:

Equazioni elementari $(k \in \mathbb{Z})$

1° tipo: $sen\ x = a$

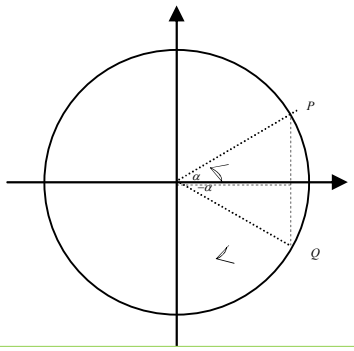
- $sen\ x = \sqrt{2}/2$ → archi ass.: $sen\ x = sen\left(\pi - x\right)$ → $\begin{cases} x = \dfrac{\pi}{4} + 2k\pi \\ x = \pi - \dfrac{\pi}{4} + 2k\pi = \dfrac{3}{4}\pi + 2k\pi \end{cases}$
- $sen\ x = 3/4$ $\begin{cases} x = arcsen\dfrac{3}{4} + 2k\pi \\ x = \pi - arcsen\dfrac{3}{4} + 2k\pi \end{cases}$
- $sen\ x = 4/3$ impossibile perché $-1 \le sen\ x \le 1$
- Caso particolare: $sen\ x = 1$ → $x = \dfrac{\pi}{2} + 2k\pi$



cfr. archi ass.: $sen\ x = sen\left(\pi - x\right)$

2° tipo: $cos\ x = b$

- $cos\ x = 1/2$ → $\begin{cases} x = \pm\dfrac{\pi}{3} + 2k\pi \end{cases}$
- $cos\ x = 3/4$ $\begin{cases} x = \pm arccos\dfrac{3}{4} + 2k\pi \end{cases}$
- $cos\ x = 4/3$ impossibile perché $-1 \le cos\ x \le 1$
- Caso particolare: $cos\ x = 1$ → $x = 2k\pi$



cfr. archi ass.: $cos\ x = cos\left(-x\right)$

3° tipo: $tg\ x = c$

- $tg\ x = \sqrt{3}/3$ → $x = \dfrac{\pi}{6} + k\pi$
- $tg\ x = 5/6$ → $x = arctg\dfrac{5}{6} + k\pi$