Goniometria

10 feb '21

ex $\operatorname{sen}\left(x + \frac{\pi}{6}\right) = \operatorname{sen}\left(2x + \frac{3}{4}\pi\right)$ $\Big\|$ $\operatorname{sen}\alpha = \operatorname{sen}\beta$

$x + \frac{\pi}{6} = 2x + \frac{3}{4}\pi + 2k\pi$ $\qquad$ $\alpha = \beta + 2k\pi$

V $\qquad$ V

$x + \frac{\pi}{6} = \pi - 2x - \frac{3}{4}\pi + 2k\pi$ ... $\qquad$ $\alpha = \pi - \beta + 2k\pi$

ex $\operatorname{sen} x - 2 \operatorname{sen} x \cos x = 0$

$\operatorname{sen} x (1 - 2\cos x) = 0$ $\qquad$ $\operatorname{sen} x = \operatorname{sen} 2x$

ex $2\cos^2 x - \cos x - 1 = 0$ $\quad t = \cos x$

$2t^2 - t - 1 = 0$ ...

ex $2^{\sin x - \cos x} > 1 = 2^0$

$\sin x - \cos x > 0$

→ angolo aggiunto

→ $\sin x = Y$, $\cos x = X$ $\Rightarrow \begin{cases} Y - X > 0 \\ X^2 + Y^2 = 1 \end{cases}$

→ $\cos x \,(\operatorname{tg} x - 1) > 0$

ANGOLO AGGIUNTO

sia $n = a \sin x + b \cos x$

- $K = \sqrt{a^2 + b^2}$
- $\tan \alpha = \frac{b}{a}$

allora

$n = K \cdot \sin(x + \alpha)$