



(1) Resolver as equações abaixo:

(a)  $\operatorname{sen} x = \operatorname{sen} \frac{\pi}{7}$

(b)  $\operatorname{cosec} x = 2$

(c)  $3 \operatorname{tg} x = 2 \cos x$

(d)  $\operatorname{sen} x + \cos 2x = 1$

(e)  $\operatorname{sen} 2x = \operatorname{sen} x$

(f)  $\operatorname{sen} \left(x - \frac{\pi}{3}\right) = \frac{\sqrt{3}}{2}$

(g)  $4 \cos^2 x = 3$

(h)  $\cos 2x + 3 \cos x + 2 = 0$

(i)  $\cos \left(x + \frac{\pi}{6}\right) = 0$

(j)  $\cos \left(x - \frac{\pi}{4}\right) = 1$

(k)  $\cos 5x = \cos \left(x + \frac{\pi}{3}\right)$

(l)  $3 \operatorname{tg} x = \sqrt{3}$

(m)  $\operatorname{tg} 2x = \operatorname{tg} \left(x + \frac{\pi}{4}\right)$

(n)  $\operatorname{tg}^2 2x = 3$

(2) Determinar  $x \in (0, 2\pi)$  tal que  $\cos 2x = \frac{1}{2}$ .

(3) Obter  $x$  tal que  $\cos 3x - \cos 2x = 0$  e  $0 \leq x \leq \pi$ .

(4) Resolva em  $\mathbb{R}$  a equação  $\operatorname{sen} 2x = 1 - \cos 2x$ .