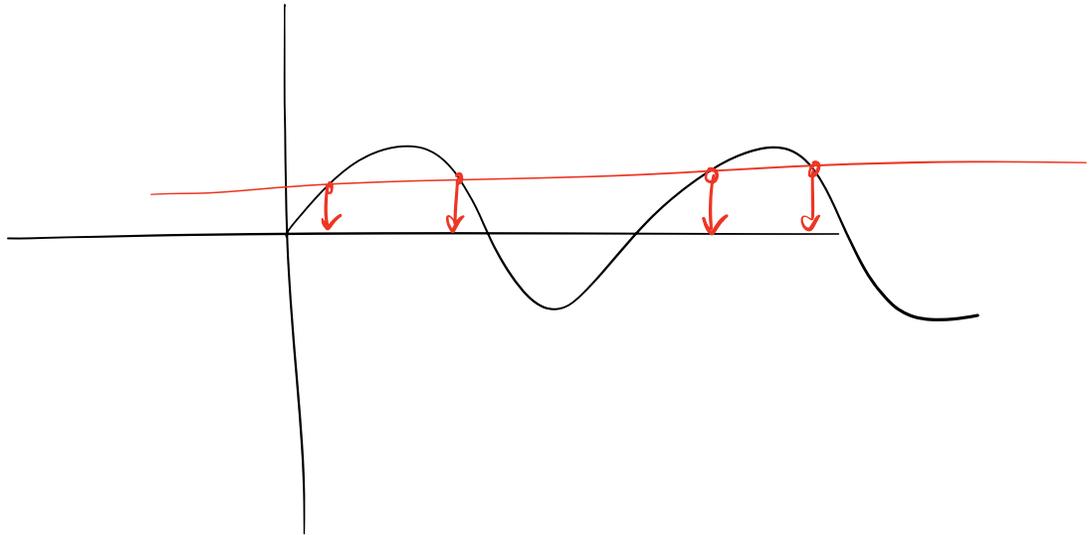


$$\sin(x) = a$$

$$a \in [-1; 1]$$



$$\sin x + \cos x = 0$$

$$\cos^2 x + \sin^2 x = 1$$

$$\sin^2 x + 3\sin x + 2 = 0$$

$$\sin x = \sqrt{1 - \cos^2 x}$$

$$\cos x = \sqrt{1 - \sin^2 x}$$

$$\sin x + \sqrt{1 - \sin^2 x} = 0$$

$$\sin x = -\sqrt{1 - \sin^2 x}$$

$$\sin^2 x = 1 - \sin^2 x$$

$$\begin{aligned} (-\sqrt{A})^2 &= (-\sqrt{A}) \cdot (-\sqrt{A}) \\ &= (\sqrt{A})^2 = A \end{aligned}$$

$$2\sin^2 x = 1$$

$$\sin^2 x = \frac{1}{2}$$

$$\sin x = \pm \frac{1}{\sqrt{2}}$$

↳ suite est « perle ».

$$\sin x + \cos x = 0$$

$$\div \cos x \quad \text{si} \quad \cos x \neq 0$$

$$\frac{\sin x}{\cos x} + 1 = 0 \Leftrightarrow \tan x + 1 = 0$$

$$\Leftrightarrow \cos x = -1$$

« faul »

$$\sin^4 x + 3 \sin^2 x + 2 = 0$$

$$\sin^2 x = t$$

$$t^2 + 3t + 2 = 0$$

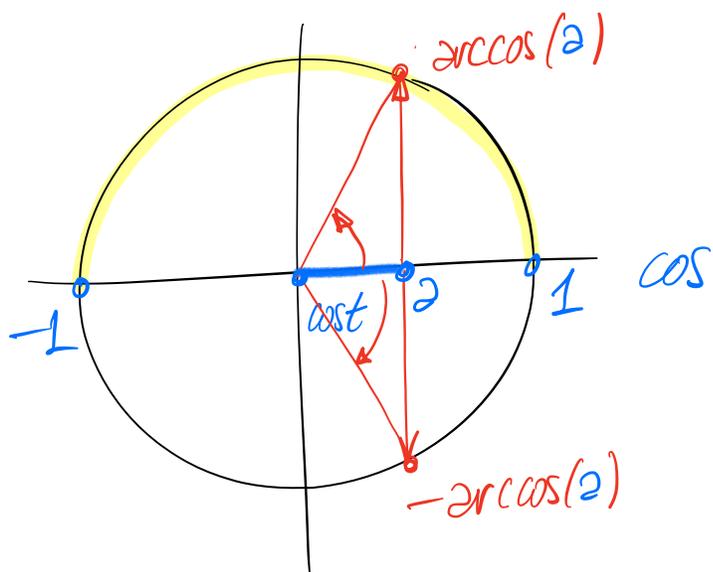
$$(t+1)(t+2) = 0$$

$$t = -1$$

$$t = -2$$

$$\sin^2 x = -2$$

$$\sin^2 x = 1 \quad \text{« faul »}$$



un angle
 \downarrow
 $\cos t = a$

un nombre
 \downarrow
 dans $[-1; 1]$

$$\Leftrightarrow t = \pm \arccos(a) + k2\pi$$