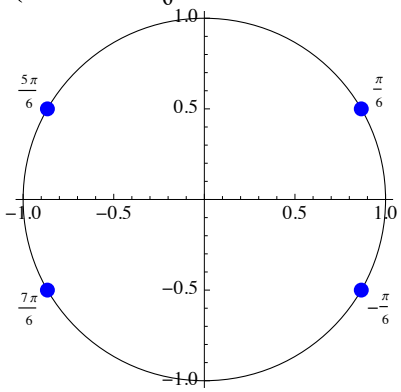
## Equations trigonométriques - Exercices

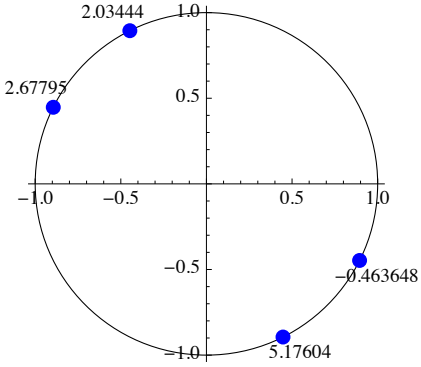
- Résoudre dans $\mathbb{R}$
  - $3\tan^2(x) - 1 = 0$

$$\begin{cases} x = \pi k - \frac{\pi}{6} & (1) \\ x = \pi k + \frac{\pi}{6} & (2) \end{cases}$$



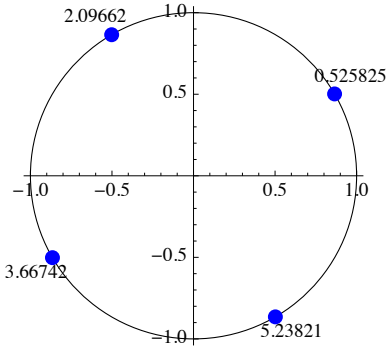

  - $5\sin(2x) + 4 = 0$

$$\begin{cases} x = 3.14159\,k - 0.463648 & (1) \\ x = 3.14159\,k + 2.03444 & (2) \end{cases}$$



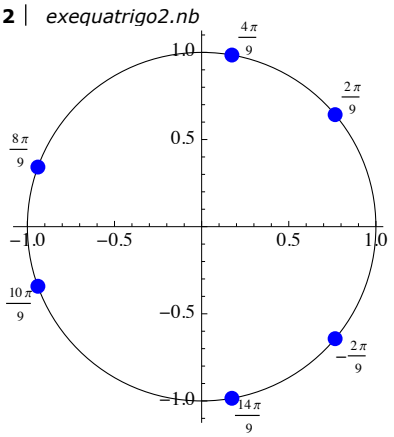

  - $4\tan(2x) - 7 = 0$

$$x = 1.5708\,k + 0.525825$$



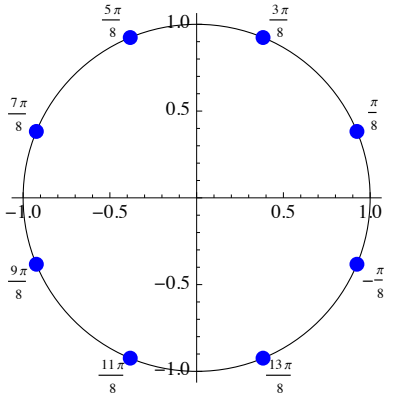

  - $2\sin\left(3x - \frac{\pi}{2}\right) - 1 = 0$

$$\begin{cases} x = \frac{2\pi k}{3} - \frac{2\pi}{9} & (1) \\ x = \frac{2\pi k}{3} + \frac{2\pi}{9} & (2) \end{cases}$$



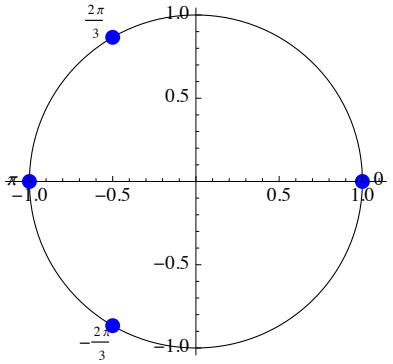

- $2\sin^2(2x)-1=0$

$$\left\{x=\pi k-\frac{\pi}{8},\left\{x=\pi k+\frac{5\pi}{8},\ \begin{cases} x=\pi k+\frac{\pi}{8} & (1)\\ x=\pi k+\frac{3\pi}{8} & (2)\end{cases}\right\}\right\}$$



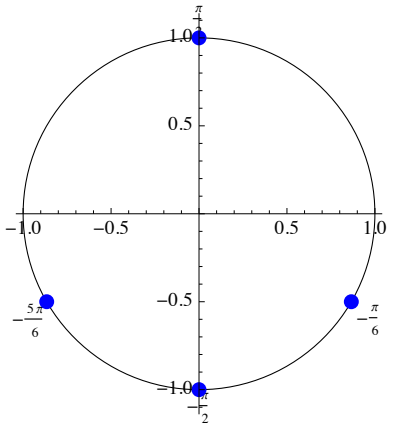

- $\sin(2x)+\sin(x)=0$

$$\left\{x=k\pi,,\ \begin{cases} x=2k\pi-\frac{2\pi}{3} & (1)\\ x=2\pi k+\frac{2\pi}{3} & (2)\end{cases}\right\}$$




- $\sin(2x)+\cos(x)=0$

$$\left\{x=\pi k+\frac{\pi}{2},\ \begin{cases} x=2k\pi-\frac{5\pi}{6} & (1)\\ x=2k\pi-\frac{\pi}{6} & (2)\end{cases}\right\}$$


π/2
1.0
0.5
−1.0
−0.5
0.5
1.0
−0.5
−1.0
−5π/6
−π/6
−π/2