

Corrigé

1. $\cos^2\left(\frac{-\pi}{13}\right) + \sin^2\left(\frac{-\pi}{13}\right) = 1$ car pour tout x réel, $\cos(x)^2 + \sin(x)^2 = 1$.

2. $\cos^2\left(\frac{-\pi}{6}\right) - \sin^2\left(\frac{-\pi}{6}\right) = \left(\frac{\sqrt{3}}{2}\right)^2 - \left(\frac{1}{2}\right)^2 = \frac{1}{2}$

3. $\sin\left(\frac{-5\pi}{6}\right) \times \cos\left(\frac{2\pi}{3}\right) - \cos(-\pi) = \frac{-1}{2} \times \frac{-1}{2} + 1 = \frac{5}{4}$

4. $\frac{\sin\left(\frac{\pi}{4}\right)}{\cos^2\left(\frac{\pi}{3}\right)} = \frac{\frac{\sqrt{2}}{2}}{\left(\frac{1}{2}\right)^2} = 2\sqrt{2}$