

**Zadatak 36.** Ako je  $f\left(x - \frac{\pi}{2}\right) = 2 \cos(\pi + x) - \sin\left(\frac{3\pi}{2} - x\right)$ , koliko je  $f\left(-\frac{17\pi}{3}\right)$ ?

**Rješenje.**  $f\left(x - \frac{\pi}{2}\right) = 2 \cos(\pi + x) - \sin\left(\frac{3\pi}{2} - x\right)$ ,

$$x - \frac{\pi}{2} = t \iff x = t + \frac{\pi}{2};$$

$$\begin{aligned} f(t) &= 2 \cos\left(\pi + t + \frac{\pi}{2}\right) - \sin\left[\frac{3\pi}{2} - \left(t + \frac{\pi}{2}\right)\right] = 2 \cos\left(\frac{3\pi}{2} + t\right) - \sin(\pi - t) \\ &= 2 \sin t - \sin t = \sin t; \end{aligned}$$

$$f\left(-\frac{17\pi}{3}\right) = \sin\left(-\frac{17\pi}{3}\right) = \sin \frac{\pi}{3} = \frac{\sqrt{3}}{2}.$$