

Zadatak 33. Ako je $f(x - 2\pi) = \cos\left(\frac{\pi}{2} + x\right) - 2 \sin(x - \pi)$, koliko je $f\left(-\frac{35\pi}{6}\right)$?

Rješenje.

$$f(x - 2\pi) = \cos\left(\frac{\pi}{2} + x\right) - 2 \sin(x - \pi),$$
$$x - 2\pi = t \iff x = t + 2\pi;$$
$$f(t) = \cos\left(\frac{\pi}{2} + t + 2\pi\right) - 2 \sin(t + \pi) = -\sin t + 2 \sin t = \sin t;$$
$$f\left(-\frac{35\pi}{6}\right) = \sin\left(-\frac{35\pi}{6}\right) = \sin \frac{\pi}{6} = \frac{1}{2}.$$