V nasledujúcich úlohách nájdite Fourierov rad funkcie:

22.1. $f(x) = 2x, \quad 0 < x < 1$

$$\left[1 - \frac{2}{\pi} \cdot \sum_{k=1}^{\infty} \frac{\sin 2k\pi t}{k}\right]$$

22.4. $f(x) = \frac{\pi}{4} - \frac{x}{2}, \quad -\pi < x < \pi$

$$\left[\frac{\pi}{4} + \sum_{k=1}^{\infty} \frac{(-1)^k}{k} \cdot \sin kt\right]$$

22.11. $f(x) = \begin{cases} 0, & -2 < x < 0 \\ x, & 0 < x < 2 \end{cases}$

$$\left[\frac{1}{2} - \frac{4}{\pi^2} \cdot \sum_{k=1}^{\infty} \frac{1}{(2n-1)^2} \cdot \cos\frac{(2n-1)\pi t}{2} + \frac{2}{\pi} \cdot \sum_{k=1}^{\infty} \frac{(-1)^{k+1}}{k} \cdot \sin\frac{k\pi t}{2}\right]$$

22.14. $f(x) = \begin{cases} 0, & -\pi < x < 0 \\ x^2, & 0 < x < \pi \end{cases}$

$$\left[\frac{\pi^2}{6} + \sum_{k=1}^{\infty} \left[\frac{2(-1)^k}{k^2} \cdot \cos kt + \left(\frac{\pi}{k} \cdot (-1)^{k+1} - \frac{2}{k^3\pi} \cdot [(-1)^k - 1]\right) \sin kt\right]\right]$$

22.24. $f(x) = |x|, \quad -1 < x < 1$

$$\left[\frac{1}{2} - \frac{4}{\pi^2} \cdot \sum_{n=1}^{\infty} \frac{1}{(2n-1)^2} \cdot \cos(2n-1)\pi t\right]$$