1. Решите простейшее тригонометрическое неравенство $\operatorname{tg} 4x < 1$.

1) $\bigcup\limits_{k\in\mathbb{Z}}\left[-\frac{\pi}{8}+\frac{\pi k}{4};\ \frac{\pi}{16}+\frac{\pi k}{4}\right)$

2) $\bigcup\limits_{k\in\mathbb{Z}}\left(-\frac{\pi}{8}+\frac{\pi k}{4};\ \frac{\pi}{16}+\frac{\pi k}{4}\right)$

3) $\bigcup\limits_{k\in\mathbb{Z}}\left[-\frac{\pi}{8}+\frac{\pi k}{4};\ \frac{\pi}{16}+\frac{\pi k}{4}\right]$

4) $\bigcup\limits_{k\in\mathbb{Z}}\left(-\frac{\pi}{8}+\frac{\pi k}{4};\ \frac{\pi}{8}+\frac{\pi k}{4}\right)$

5) $\bigcup\limits_{k\in\mathbb{Z}}\left[-\frac{\pi}{8}+\frac{\pi k}{4};\ \frac{\pi}{16}+\frac{\pi k}{4}\right]$

6) $\bigcup\limits_{k\in\mathbb{Z}}\left(-\frac{\pi}{8}+\frac{\pi k}{4};\ \frac{\pi}{8}+\frac{\pi k}{4}\right]$

2. Решите простейшее тригонометрическое неравенство $\operatorname{tg}\frac{x}{4} \leqslant -\frac{\sqrt{3}}{3}$.

1) $\bigcup\limits_{k\in\mathbb{Z}}\left(-2\pi+4\pi k;\ -\frac{2\pi}{3}+4\pi k\right)$

2) $\bigcup\limits_{k\in\mathbb{Z}}\left[-2\pi+4\pi k;\ -\frac{2\pi}{3}+4\pi k\right)$

3) $\bigcup\limits_{k\in\mathbb{Z}}\left(-2\pi+\pi k;\ -\frac{2\pi}{3}+\pi k\right]$

4) $\bigcup\limits_{k\in\mathbb{Z}}\left(-2\pi+4\pi k;\ -\frac{2\pi}{3}+4\pi k\right]$

5) $\bigcup\limits_{k\in\mathbb{Z}}\left(-2\pi+2\pi k;\ -\frac{2\pi}{3}+2\pi k\right]$

6) $\bigcup\limits_{k\in\mathbb{Z}}\left[-2\pi+4\pi k;\ -\frac{2\pi}{3}+4\pi k\right]$