

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

- 1)  $\bigcup_{k \in \mathbb{Z}} \left[ -\frac{\pi}{8} + \frac{\pi k}{4}; \frac{\pi}{16} + \frac{\pi k}{4} \right)$       2)  $\bigcup_{k \in \mathbb{Z}} \left( -\frac{\pi}{8} + \frac{\pi k}{4}; \frac{\pi}{16} + \frac{\pi k}{4} \right)$   
3)  $\bigcup_{k \in \mathbb{Z}} \left[ -\frac{\pi}{8} + \frac{\pi k}{4}; \frac{\pi}{16} + \frac{\pi k}{4} \right]$       4)  $\bigcup_{k \in \mathbb{Z}} \left( -\frac{\pi}{8} + \frac{\pi k}{4}; \frac{\pi}{8} + \frac{\pi k}{4} \right)$   
5)  $\bigcup_{k \in \mathbb{Z}} \left[ -\frac{\pi}{8} + \frac{\pi k}{4}; \frac{\pi}{16} + \frac{\pi k}{4} \right]$       6)  $\bigcup_{k \in \mathbb{Z}} \left( -\frac{\pi}{8} + \frac{\pi k}{4}; \frac{\pi}{8} + \frac{\pi k}{4} \right]$

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

- 1)  $\bigcup_{k \in \mathbb{Z}} \left( -2\pi + 4\pi k; -\frac{2\pi}{3} + 4\pi k \right)$       2)  $\bigcup_{k \in \mathbb{Z}} \left[ -2\pi + 4\pi k; -\frac{2\pi}{3} + 4\pi k \right)$   
3)  $\bigcup_{k \in \mathbb{Z}} \left( -2\pi + \pi k; -\frac{2\pi}{3} + \pi k \right]$       4)  $\bigcup_{k \in \mathbb{Z}} \left( -2\pi + 4\pi k; -\frac{2\pi}{3} + 4\pi k \right]$   
5)  $\bigcup_{k \in \mathbb{Z}} \left( -2\pi + 2\pi k; -\frac{2\pi}{3} + 2\pi k \right]$       6)  $\bigcup_{k \in \mathbb{Z}} \left[ -2\pi + 4\pi k; -\frac{2\pi}{3} + 4\pi k \right]$