

1. Решите простейшее тригонометрическое неравенство $\operatorname{ctg} x > \frac{\sqrt{3}}{3}$.

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

2. Решите простейшее тригонометрическое неравенство $\operatorname{ctg} x \geq -\sqrt{3}$.

$$\begin{array}{lll} 1) \bigcup_{k \in \mathbb{Z}} \left(\pi k; \frac{\pi}{3} + \pi k \right]. & 2) \bigcup_{k \in \mathbb{Z}} \left(\pi k; \frac{\pi}{6} + \pi k \right]. & 3) \bigcup_{k \in \mathbb{Z}} \left[\pi k; \frac{5\pi}{6} + \pi k \right) \\ 4) \bigcup_{k \in \mathbb{Z}} \left(\pi k; \frac{5\pi}{6} + \pi k \right] & 5) \bigcup_{k \in \mathbb{Z}} \left[\pi k; \frac{5\pi}{6} + \pi k \right]. & 6) \bigcup_{k \in \mathbb{Z}} \left(\pi k; \frac{5\pi}{6} + \pi k \right). \end{array}$$