

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

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

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

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