

1. Решите простейшее тригонометрическое неравенство  $\sin 2x \leq \frac{\sqrt{2}}{2}$ .

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

2. Решите простейшее тригонометрическое неравенство  $\sin \frac{x}{2} < -\frac{1}{2}$ .

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