

1. Решите тригонометрическое неравенство $3\cos^2 x < 3$.

$$1) \bigcup_{k \in \mathbb{Z}} \left(\frac{\pi}{6} + 2\pi k; \frac{5\pi}{6} + 2\pi k \right) \cup \left(\frac{7\pi}{6} + 2\pi k; \frac{11\pi}{6} + 2\pi k \right]$$

$$2) \bigcup_{k \in \mathbb{Z}} \left(\frac{\pi}{6} + 2\pi k; \frac{5\pi}{6} + 2\pi k \right) \cup \left(\frac{7\pi}{6} + 2\pi k; \frac{11\pi}{6} + 2\pi k \right)$$

$$3) \bigcup_{k \in \mathbb{Z}} \left(\frac{\pi}{6} + 2\pi k; \frac{5\pi}{6} + 2\pi k \right) \cup \left[\frac{7\pi}{6} + 2\pi k; \frac{11\pi}{6} + 2\pi k \right)$$

$$4) \bigcup_{k \in \mathbb{Z}} \left(\frac{\pi}{6} + 2\pi k; \frac{5\pi}{6} + 2\pi k \right) \cup \left[\frac{7\pi}{6} + 2\pi k; \frac{11\pi}{6} + 2\pi k \right]$$

$$5) \bigcup_{k \in \mathbb{Z}} \left(\frac{\pi}{6} + \pi k; \frac{5\pi}{6} + \pi k \right) \cup \left(\frac{7\pi}{6} + \pi k; \frac{11\pi}{6} + \pi k \right)$$

$$6) \bigcup_{k \in \mathbb{Z}} \left(\frac{\pi}{6} + 2\pi k; \frac{5\pi}{6} + 2\pi k \right) \cup \left(\frac{7\pi}{6} + \pi k; \frac{11\pi}{6} + \pi k \right)$$