

1. Решите тригонометрическое неравенство $6\sin^2 x - \sin x - 1 < 0$.

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

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

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

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

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

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