

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