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

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

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

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

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

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

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