**1.** Решите простейшее тригонометрическое неравенство $\operatorname{ctg}\dfrac{4x}{3} \leqslant \sqrt{3}$.

1) $\bigcup\limits_{k\in\mathbb{Z}} \left(\dfrac{\pi}{8}+\dfrac{3\pi}{4}k;\ \dfrac{3\pi}{4}+\dfrac{3\pi}{4}k\right)$

2) $\bigcup\limits_{k\in\mathbb{Z}} \left[\dfrac{\pi}{8}+\dfrac{3\pi}{4}k;\ \dfrac{3\pi}{4}+\dfrac{3\pi}{4}k\right]$

3) $\bigcup\limits_{k\in\mathbb{Z}} \left[\dfrac{\pi}{8}+\dfrac{3\pi}{4}k;\ \dfrac{3\pi}{4}+\dfrac{3\pi}{4}k\right)$

4) $\bigcup\limits_{k\in\mathbb{Z}} \left[\dfrac{\pi}{8}+\dfrac{\pi}{4}k;\ \dfrac{3\pi}{4}+\dfrac{\pi}{4}k\right)$

5) $\bigcup\limits_{k\in\mathbb{Z}} \left(\dfrac{\pi}{8}+\dfrac{3\pi}{4}k;\ \dfrac{3\pi}{4}+\dfrac{3\pi}{4}k\right]$

6) $\bigcup\limits_{k\in\mathbb{Z}} \left[\dfrac{\pi}{8}+\dfrac{3\pi}{2}k;\ \dfrac{3\pi}{4}+\dfrac{3\pi}{2}k\right)$