

1. Решите простейшее тригонометрическое неравенство $3 \operatorname{ctg} \frac{3x}{4} \geq \sqrt{3}$

$$\begin{array}{lll} 1) \bigcup_{k \in \mathbb{Z}} \left(\frac{4\pi}{3}k; \frac{4\pi}{9} + \frac{4}{3}\pi k \right] & 2) \bigcup_{k \in \mathbb{Z}} \left[\frac{4\pi}{3}k; \frac{4\pi}{9} + \frac{4}{3}\pi k \right) & 3) \bigcup_{k \in \mathbb{Z}} \left(\frac{\pi}{3}k; \frac{4\pi}{9} + \frac{4}{3}\pi k \right] \\ 4) \bigcup_{k \in \mathbb{Z}} \left[\frac{4\pi}{3}k; \frac{4\pi}{9} + \frac{4}{3}\pi k \right] & 5) \bigcup_{k \in \mathbb{Z}} \left(\frac{4\pi}{3}k; \frac{4\pi}{9} + \frac{4}{3}\pi k \right) & 6) \bigcup_{k \in \mathbb{Z}} \left(\frac{\pi}{3}k; \frac{5\pi}{9} + \frac{4}{3}\pi k \right] \end{array}$$