

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

$$1) \bigcup_{k \in \mathbb{Z}} \left(\frac{4\pi}{3}k; \frac{4\pi}{9} + \frac{4}{3}\pi k \right]$$

$$2) \bigcup_{k \in \mathbb{Z}} \left[\frac{4\pi}{3}k; \frac{4\pi}{9} + \frac{4}{3}\pi k \right)$$

$$3) \bigcup_{k \in \mathbb{Z}} \left(\frac{\pi}{3}k; \frac{4\pi}{9} + \frac{4}{3}\pi k \right]$$

$$4) \bigcup_{k \in \mathbb{Z}} \left[\frac{4\pi}{3}k; \frac{4\pi}{9} + \frac{4}{3}\pi k \right]$$

$$5) \bigcup_{k \in \mathbb{Z}} \left(\frac{4\pi}{3}k; \frac{4\pi}{9} + \frac{4}{3}\pi k \right)$$

$$6) \bigcup_{k \in \mathbb{Z}} \left(\frac{\pi}{3}k; \frac{5\pi}{9} + \frac{4}{3}\pi k \right]$$