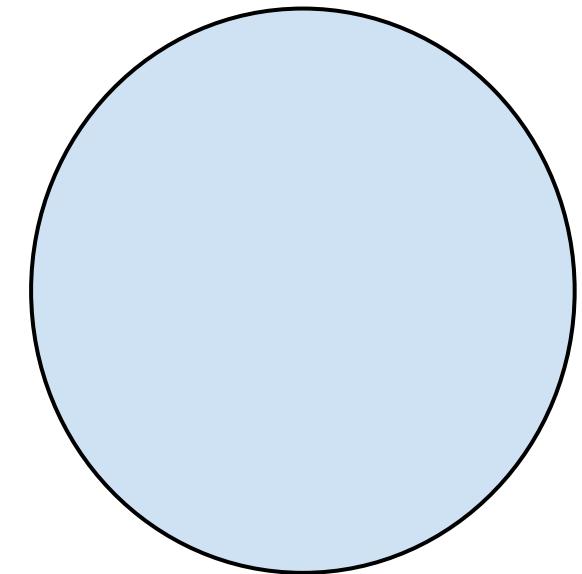


$$\begin{aligned}\operatorname{tg}^2(3x - \frac{\pi}{4}) &= 3 \\ \operatorname{tg}(3x - \frac{\pi}{4}) &= \pm\sqrt{3}\end{aligned}$$

$$\begin{aligned}\operatorname{tg}x &= -7 \\ x &= \arctg(-7) + Pk \\ x &= -\arctg 7 + Pk\end{aligned}$$

$$\begin{aligned}\operatorname{tg}(3x - \frac{\pi}{4}) &= \sqrt{3} \\ 3x - \frac{\pi}{4} &= \frac{\pi}{3} + Pk \\ x &= (\frac{\pi}{3} + Pk + \frac{\pi}{4})/3\end{aligned}$$



$$\begin{aligned}\operatorname{tg}(3x - \frac{\pi}{4}) &= -\sqrt{3} \\ 3x - \frac{\pi}{4} &= 2\frac{\pi}{3} + Pk \\ x &= (2\frac{\pi}{3} + Pk + \frac{\pi}{4})/3 \\ \text{Ответ: } &(P/3 + Pk + P/4)/3; (2P/3 + Pk + P/4)/3\end{aligned}$$

$$\begin{aligned}\operatorname{tg}^2(3x - \frac{\pi}{4}) &= 3 \\ \operatorname{tg}^2(3x - \frac{\pi}{4}) &= \sin^2(3x - \frac{\pi}{4})/\cos^2(3x - \frac{\pi}{4}) \\ \sin^2(3x - \frac{\pi}{4})/\cos^2(3x - \frac{\pi}{4}) &= 3 \\ \sin^2(3x - \frac{\pi}{4}) &= (1 - \cos(6x - \frac{\pi}{2}))/2 \\ \cos^2(3x - \frac{\pi}{4}) &= (\cos(6x - \frac{\pi}{2}) + 1)/2 \\ (1 - \cos(6x - \frac{\pi}{2}))/2 &= (1 + \cos(6x - \frac{\pi}{2}))/2 \\ \cos(6x - \frac{\pi}{2}) &= y \\ (1 - y)/(1 + y) &= 3 \\ 1 - y &= 3 + 3y \\ y &= -1\end{aligned}$$

$$\begin{aligned}4y &= -2 \\ y &= -\frac{1}{2} \\ \cos(6x - \frac{\pi}{2}) &= -\frac{1}{2} \\ 6x - \frac{\pi}{2} &= -2\frac{\pi}{3} + 2Pk \\ x &= (-2\frac{\pi}{3} + 2Pk + \frac{\pi}{2})/6 \\ \cos(6x - \frac{\pi}{2}) &\neq -1 \\ 6x - \frac{\pi}{2} &\neq P + 2Pk \\ x &\neq (P + 2Pk + \frac{\pi}{2})/6 \\ \text{Ответ: } &(-2\frac{\pi}{3} + 2Pk + \frac{\pi}{2})/6\end{aligned}$$