2.34
.4

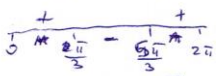
$$\begin{cases} \operatorname{tg}2x + 3\cos x < 1 \\ \sin 2x + \sin x > 0 \end{cases}$$

$2\operatorname{tg}^2 x + 3\operatorname{tg}x < 1$

$2\operatorname{tg}^2 x + 3\operatorname{tg}x - 2 < 0$

$\operatorname{tg}x = -2 \to \emptyset$

$\operatorname{tg}x = \frac{1}{2} \to x = \frac{\pi}{5} + 2\pi k$



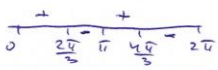
$\frac{\pi}{3} < x < \frac{5\pi}{3}$

$2\sin x \operatorname{tg}x + \sin x > 0$

$\sin x (2\operatorname{tg}x + 1) > 0$

$\sin x = 0 \to x = \pi k$

$\operatorname{tg}x = -\frac{1}{2} \to x = -\frac{\pi}{5} + 2\pi k$



$0 < x < \frac{2\pi}{3}, \quad \pi < x < \frac{3\pi}{4}$

חיתוך

$\frac{\pi}{3} < x < \frac{2\pi}{3}, \quad \frac{4\pi}{3} < x < \pi$