① Να λυθεί στο διάστημα $[0, 2\pi]$ η εξίσωση $2\eta\mu x - \sqrt{3} = 0$

ΛΥΣΗ

$2\eta\mu x - \sqrt{3} = 0 \Rightarrow \eta\mu x = \frac{\sqrt{3}}{2} \Rightarrow \eta\mu x = \eta\mu \frac{\pi}{3}$

$\rightarrow x = 2k\pi + \frac{\pi}{3}$

$\rightarrow x = 2k\pi + \pi - \frac{\pi}{3}$.

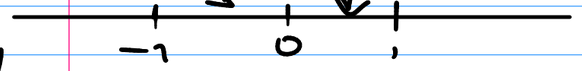
$0 \le 2k\pi + \frac{\pi}{3} \le 2\pi.$

$0 \le 6k\pi + \pi \le 6\pi.$

$-\pi \le 6k\pi \le 5\pi.$

$\frac{-\pi}{6\pi} \le k \le \frac{5\pi}{6\pi}$

$-\frac{1}{6} \le k \le \frac{5}{6}$



Δεκ $k=0$ Δεκ

$x = 2 \cdot 0 \cdot \pi + \frac{\pi}{3} \Rightarrow x = \frac{\pi}{3}$

$0 \le 2k\pi + \pi - \frac{\pi}{3} \le 2\pi.$

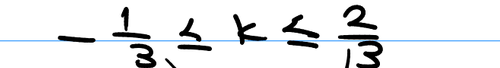
$0 \le 6k\pi + 3\pi - \pi \le 6\pi.$

$0 \le 6k\pi + 2\pi \le 6\pi.$

$-2\pi \le 6k\pi \le 4\pi.$

$\frac{-2\pi}{6\pi} \le k \le \frac{4\pi}{6\pi}$

$-\frac{1}{3} \le k \le \frac{2}{3}$



Δεκ $k=0$ μόνη $x = 2 \cdot 0 \cdot \pi + \pi - \frac{\pi}{3} = \frac{3\pi}{3} - \frac{\pi}{3} = \frac{2\pi}{3}$