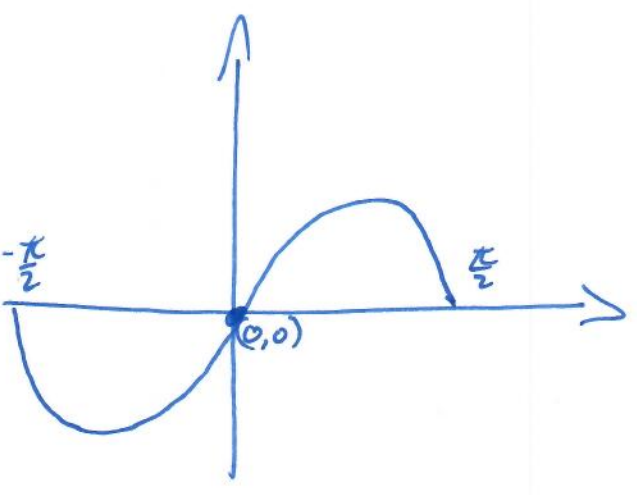


3 פתה



$$-\frac{\pi}{2} \leq x \leq \frac{\pi}{2}$$

! וריוכה . ! סוף . (k)
 $-\frac{\pi}{2} < x < 0$ $0 < x < \frac{\pi}{2}$

min עלון $f(x)$ -1 וי $x=0$ (ג)

max $x = -\frac{\pi}{2}$
 max $x = \frac{\pi}{2}$

$$f(x) = \sin^2(x) - \frac{1}{4}$$

$x=0$! y סוף קו

$y=0$! x סוף קו (ד)

$$y = -\frac{1}{4}$$

$$(0, -\frac{1}{4})$$

$$0 = \sin^2(x) - \frac{1}{4}$$

$$\sin^2(x) = \frac{1}{4}$$

$$\sin(x) = \pm \frac{1}{2}$$

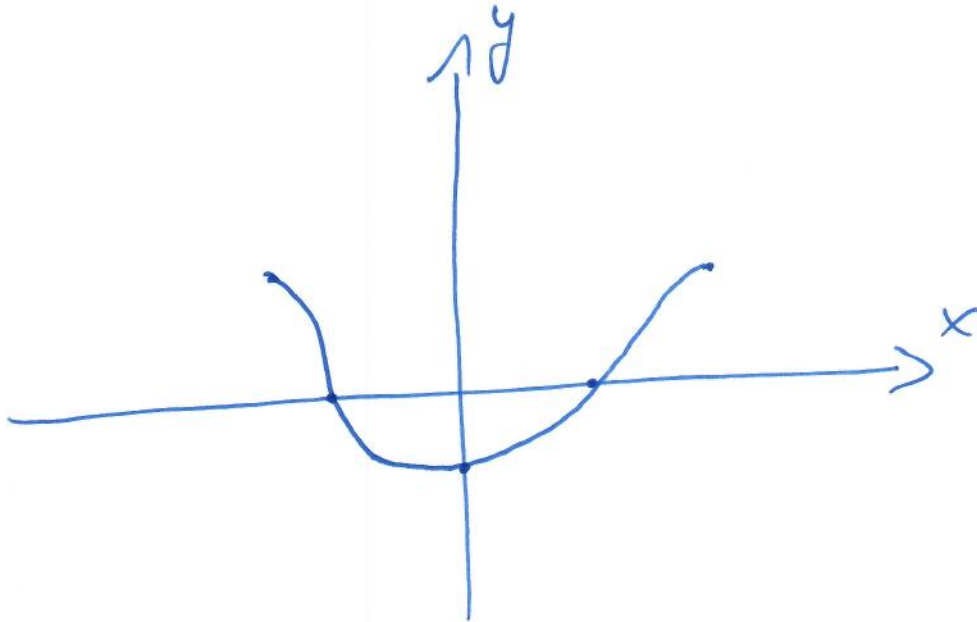
$x_1 = \frac{\pi}{6} + 2\pi k$
 $x_2 = \frac{5\pi}{6} + 2\pi k$

$x_3 = -\frac{\pi}{6} + 2\pi k$
 $x_4 = \frac{7\pi}{6} + 2\pi k$

k	x_1	x_2	x_3	x_4
0	$\frac{\pi}{6}$	$\frac{\pi}{6}$	$-\frac{\pi}{6}$	x
1	x	x	x	x

$x = \frac{\pi}{6}$, $x = -\frac{\pi}{6}$
 $(\frac{\pi}{6}, 0)$ $(-\frac{\pi}{6}, 0)$

3



$$f'(x) = 2 \sin(x) \cos(x)$$

$$f'(x) = \sin(2x)$$

אם $x = \frac{\pi}{6}$ אז
 • $\sin(2x)$ $\neq 0$

$$f'\left(\frac{\pi}{6}\right) = \frac{\sqrt{3}}{2} = m$$

$$y = \frac{\sqrt{3}}{2} \left(x - \frac{\pi}{6}\right) \quad \text{!1 פה נרשם}$$

$$y = \frac{\sqrt{3}x}{2} - \frac{\sqrt{3}\pi}{12}$$

$$m = 0$$

$$y + \frac{1}{4} = 0 \quad (x=0)$$

$$y = -\frac{1}{4}$$

!2 פה נרשם

נרשם $\frac{1}{4}$ ב-1

$$-\frac{1}{4} = \frac{\sqrt{3}x}{2} - \frac{\sqrt{3}\pi}{12} \quad / \cdot 12$$

$$-3 = 6\sqrt{3}x - \sqrt{3}\pi$$

$$\sqrt{3}\pi - 3 = 6\sqrt{3}x$$

$$0.234 = x$$

$$(0.234, -\frac{1}{4})$$