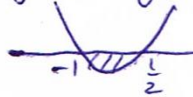


2.31  
2

$$\begin{cases} 2\cos^2 x - \cos x - 1 \geq 0 \\ 1 \leq \tan^2 x \end{cases}$$

$$2(1 - \sin^2 x) - \cos x - 1 \geq 0$$

$$0 \geq 2\sin^2 x + \cos x - 1$$



$$-1 \leq \cos x \leq \frac{1}{2}$$

$$\boxed{2\pi k + \frac{\pi}{3} \leq x \leq \frac{5\pi}{3} + 2\pi k}$$

$$1 \leq \tan^2 x$$

$$\tan x \geq 1$$

$$\tan x < -1$$

$$\boxed{\pi k + \frac{\pi}{4} \leq x < \frac{\pi}{2} + \pi k}$$

$$\boxed{-\frac{\pi}{2} + \pi k \leq x < -\frac{\pi}{4} + \pi k}$$

$$0 \leq x \leq \pi \quad \text{הקטן}$$

$$\frac{\pi}{3} \leq x \leq \pi \quad \text{הקטן והגדול}$$

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

$$\frac{\pi}{3} \leq x < \frac{\pi}{2}, \quad \frac{\pi}{2} < x \leq \frac{3\pi}{4} \quad \text{הגדול והקטן}$$