

2.52
к5

$$\sin x = \sin 2x$$

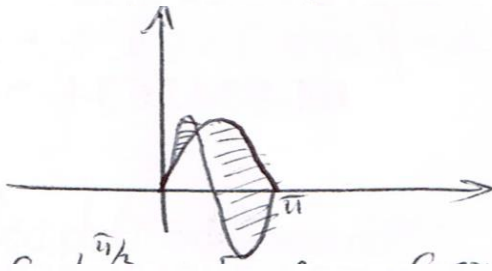
γλιν π

$$x = 2\pi k \leftarrow x = 2x + 2\pi k$$

$$x = \frac{\pi}{2} + 2\pi k \leftarrow x = \pi - 2x + 2\pi k$$

$$0, \frac{\pi}{3}, \pi$$

$$0 \leq x \leq \pi \quad \text{π/3ππ}$$



$$\int_0^{\pi/3} (\sin 2x - \sin x) dx + \int_{\pi/3}^{\pi} (\sin x - \sin 2x) dx = -\frac{\cos 2x}{2} + \cos x \Big|_0^{\pi/3}$$

$$\left[-\frac{1}{2} \cos 2x + \cos x \Big|_{\pi/3}^{\pi} \right] =$$

$$= \left(\frac{1}{2} + 1 \right) - \left(-\frac{1}{2} + 1 \right) + \left(1 + \frac{1}{2} \right) - \left(-\frac{1}{2} - \frac{1}{2} \right) = 2 \frac{1}{2}$$