

$$2 \cos 6x + 4 \cos 3x - 1 > 0$$

2/3.23

$$0 \leq x \leq 2\pi \text{ (radians)}$$

$$2(2 \cos^2 3x - 1) + 4 \cos 3x - 1 > 0$$

$$4 \cos^2 3x + 4 \cos 3x - 3 > 0$$

$$4 \cos^2 3x + 6 \cos 3x - 2 \cos 3x - 3 > 0$$

$$2 \cos 3x (2 \cos 3x - 1) + 3(2 \cos 3x - 1) > 0$$

$$(2 \cos 3x + 3)(2 \cos 3x - 1) > 0$$

$$\cos 3x = -\frac{3}{2}$$

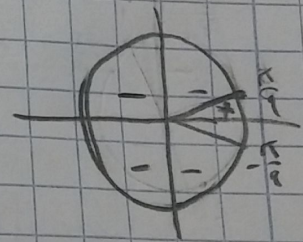
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$$\cos 3x = \frac{1}{2}$$

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

$$x = \pm \frac{\pi}{9} + \frac{2\pi k}{3}$$

$$\frac{2\pi k}{3} - \frac{\pi}{9} \leq x \leq \frac{\pi}{9} + \frac{2\pi k}{3}$$



$$\frac{5\pi}{9} < x < \frac{7\pi}{9}$$

$$\frac{11\pi}{9} < x < \frac{13\pi}{9}$$

$$0 < x < \frac{\pi}{9}$$

$$\frac{5\pi}{9} < x < \frac{7\pi}{9}$$

in radians