2.40
3

$$\cos^2 2x - 3\sin 2x + \frac{3}{4} > 0$$

$$1 - \sin^2 2x - 3\sin 2x + \frac{3}{4} > 0$$

$$4\sin^2 2x + 12\sin 2x - 7 < 0$$

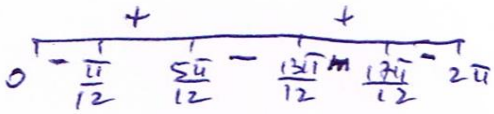
$$\sin 2x = -\frac{14}{4} \to \emptyset$$

$$\sin 2x = \frac{1}{2} \to 2x = \frac{\pi}{6} + 2\pi k$$

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

$$x = \frac{\pi}{12} + \pi k$$

$$x = \frac{5\pi}{12} + \pi k$$



$$0 < x < \frac{\pi}{12}$$

$$\frac{5\pi}{12} < x < \frac{13\pi}{12}$$

$$\frac{17\pi}{12} < x < 2\pi$$