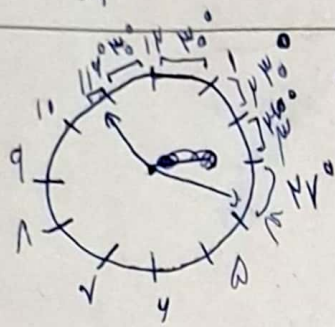


نام و نام خانوادگی: شماره: ۱۹ کلاس: درس: A



هر دقیقه ۱/۲

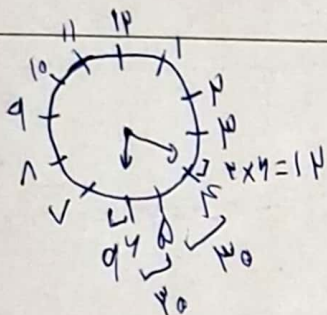
$$\frac{12}{40} \times 360 = 108^\circ$$

$$\frac{12}{40} \times 360 + 4 + 27 = 108^\circ$$

$$|108^\circ - 360^\circ|$$

$$= \frac{11}{4} \times 360 - 360 \times 3 = 108^\circ$$

(۲)



$$\frac{11}{40} \times 360 = 99^\circ$$

$$99 + 12 + 40 = 151^\circ$$

$$|151^\circ - 360^\circ|$$

$$= \frac{11}{4} \times 360 - 360 \times 4 = 151^\circ$$

(۲)

$$b) p = \alpha r = \frac{\pi}{4} \times 360 = \frac{\pi}{4}$$

$$\left(\frac{\pi}{4} + 4 \right)$$

مقطع قطاع

(۲)

$$الف) S = \frac{\alpha}{4} r^2 = \frac{\pi}{14} \times 9 = \frac{\pi}{2}$$

۳

$$S_{ABC} = AB \times AC \times \sin 40^\circ \times \frac{1}{2} = \frac{8 \times 1}{2} \times \frac{\sqrt{3}}{2} = 4\sqrt{3}$$

(۲)

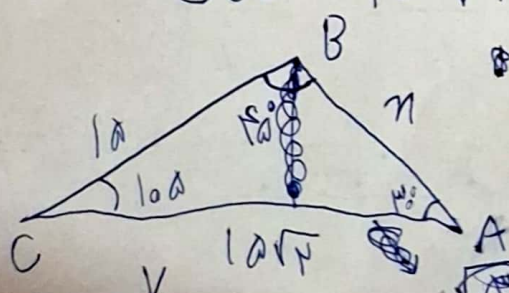
۴

$$BC^2 = AC^2 + AB^2 - 2AB \times AC \times \cos 40^\circ = 4^2 + 1^2 - 2 \times 4 \times 1 \times \cos 40^\circ = 17$$

$$\Rightarrow BC = \sqrt{17}$$

$$P = V + 1 + 4 = 10$$

$$\hat{B} + \hat{C} = 180^\circ \Rightarrow A = 30^\circ$$



$$\frac{10}{\sin 30^\circ} = \frac{4}{\sin B}$$

$$\frac{10\sqrt{3}}{360} = \sin B \Rightarrow B = \frac{\pi}{6}$$

(۲)

$$\hat{C} = \frac{10}{\sqrt{17}} = \frac{10}{\sqrt{17}}$$

$$B = \frac{\pi}{6} = \frac{\pi}{6}$$

$$-\tan \alpha$$

$$+ \tan \alpha$$

$$\tan(\pi - \alpha) + \tan(\pi + \alpha)$$

$$= \frac{-\tan \alpha + \tan \alpha}{-\tan \alpha} = -1 \quad \checkmark$$

$$\tan(\pi - \alpha) - \tan(\pi + \alpha)$$

$$-\tan \alpha$$

$$+\tan \alpha$$

$$\cot \alpha$$

$$-\cot \alpha$$

$$\tan \frac{\pi}{n} = \tan \left(\frac{\pi}{n} - \alpha \right) + \tan \left(\frac{\pi}{n} + \alpha \right)$$

$$\frac{1}{\tan \alpha} = \frac{1}{\tan \alpha}$$

$$\frac{1}{\tan \alpha} = \frac{1}{\tan \alpha}$$

$$= \frac{1}{\tan \alpha} = \frac{1}{\tan \alpha}$$

$$\tan(\pi - \alpha) - \tan(\frac{\pi}{n} - \alpha)$$

$$-\tan \alpha$$

$$+\cot \alpha$$

$$\frac{1}{\tan \alpha} = \frac{1}{\tan \alpha}$$

$$\frac{\sin \alpha + \cos \alpha}{\sin \alpha - \cos \alpha} + \frac{\sin \alpha - \cos \alpha}{\sin \alpha + \cos \alpha} = \frac{1}{\tan \alpha}$$

$$\Rightarrow \frac{\sin^2 \alpha + \cos^2 \alpha}{\sin \alpha - \cos \alpha} = \frac{1}{\tan \alpha}$$

$$\Rightarrow \cos^2 \alpha = \frac{1}{4}$$

$$1 - \cos^2 \alpha = \sin^2 \alpha = 1 - \frac{1}{4} = \frac{3}{4}$$

$$\sin \alpha = \frac{\sqrt{3}}{2}$$

$$\sin \alpha + \cos \alpha = 1$$

$$1 - \cos^2 \alpha$$

$$\frac{1}{\tan \alpha}$$

$$1 + \cos^2 \alpha = 1$$

$$\Rightarrow \sin \alpha = 1 - \cos \alpha = 1 - \frac{1}{2} = \frac{1}{2}$$

$$\Rightarrow \tan \alpha = \frac{\sin \alpha}{\cos \alpha} = \frac{\frac{1}{2}}{\frac{1}{2}} = 1$$

$$\cos(\frac{\pi}{4})$$

$$\Rightarrow \cos \frac{\pi}{4} = \frac{1}{\sqrt{2}}$$

$$\sin(\frac{\pi}{4})$$

$$\sin \alpha = 1 - \cos \alpha$$

$$\Rightarrow \sin \alpha = \frac{1}{\sqrt{2}}$$

$$\frac{1}{\sqrt{2}}$$