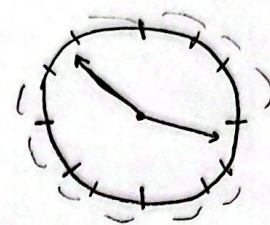


د. 3	د. 40
د. 27	د. 54

$$120 + 27 + 4 = 151$$

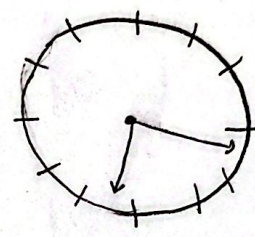


الف

$$|5:50 - 2:10| = 5:50(54) - 90 = 204$$

$$340 - 204 = 136$$

د. 3	د. 40
د. 9	د. 18

$$40 + 9 + 12 = 61$$


$$120 - 18 = 102$$

$$|5:50 - 2:10| = |9 - 18| = 9$$

$$\frac{\pi}{4} \times \frac{180}{\pi} = 45^\circ$$

$$S = \frac{\alpha}{r} R^2 \rightarrow \frac{r_0}{\omega \Delta t} \times \frac{\pi}{4} = 18$$

$$AB = \alpha R \rightarrow 30 \times 3 = 90 + 4 = 94$$

$$\sin 45^\circ = \frac{\sqrt{2}}{2}$$

$$S = \frac{1}{2} \sin \alpha \times ab \rightarrow \frac{1}{2} \times 4 \times \frac{\sqrt{2}}{2} \times \frac{\sqrt{2}}{2} = 10\sqrt{2}$$

$$V + 1 + a = 20$$

$$C = \sqrt{a^2 + b^2 - 2ab \cos \alpha} \rightarrow \sqrt{10^2 + 10^2 - 2 \times 10 \times 10 \times \frac{1}{2}} = 10\sqrt{2}$$

$$\cos 45^\circ = \frac{1}{\sqrt{2}}$$

$$\frac{10}{\frac{1}{\sqrt{2}}} = 10\sqrt{2} = \frac{10\sqrt{2}}{1} \rightarrow u = \frac{\sqrt{2}}{1}$$

$$r_0 = \frac{10\sqrt{2}}{\sin B} = \frac{AB}{\sin C}$$

$$10\sqrt{2} = \sqrt{(10)^2 + (10)^2 \pm 2 \times 10 \times 10 \times \frac{1}{2}}$$

$$\frac{1}{2} \times 100 = 100 + 100 \pm 100\sqrt{2} \times \frac{1}{2}$$

$$100 \pm 100\sqrt{2} \times \frac{1}{2} = 100$$

$$\pm 100\sqrt{2} \times \frac{1}{2} = 0$$

$$\pm 100\sqrt{2} \times \frac{1}{2} = 0$$

$$10 = \sqrt{(10\sqrt{2})^2 + x^2 - 2 \times 10\sqrt{2} \times x \times \frac{1}{2}}$$

$$100 = 200 + x^2 - 10\sqrt{2}x$$

$$x^2 - 10\sqrt{2}x + 100 = 0$$

$$x = \frac{10\sqrt{2} \pm \sqrt{100 - 400}}{2} = \frac{10\sqrt{2} \pm \sqrt{-300}}{2}$$

$$\frac{\tan(\pi - \alpha) + r \tan(\pi + \alpha)}{\tan(\pi - \alpha) - \tan(\pi + \alpha)} = \frac{-\tan \alpha + r(\tan \alpha)}{-\tan \alpha - \tan \alpha} = \frac{r \tan \alpha}{-r \tan \alpha} = -1$$

$$\frac{r \tan(\frac{\pi}{r} - 10) + \tan(\frac{\pi}{r} + 10)}{r \tan(\pi - 10) - \tan(\frac{\pi}{r} - 10)} = \frac{r \cot 10^\circ - \cot 10^\circ}{r \tan \alpha - \cot 10^\circ} = \frac{\cot 10^\circ}{r \tan \alpha - \cot 10^\circ}$$

$$\tan \frac{\pi}{r} = \tan 10^\circ = a$$

$$\cot 10^\circ = \frac{1}{a}$$

$$\frac{\frac{1}{a}}{ra - \frac{1}{a}} = \frac{\frac{1}{a}}{\frac{ra^2 - 1}{a}} = \boxed{\frac{1}{ra^2 - 1}}$$

$$\frac{\frac{\sin x + \cos x}{\cos x} + \frac{\sin x - \cos x}{\sin x + \cos x}}{\frac{\sin x + \cos x}{\cos x} - \frac{\sin x - \cos x}{\sin x + \cos x}} = r \rightarrow \frac{\frac{1}{\cos x} + \frac{\tan x + 1}{\tan x - 1} + \frac{\tan x - 1}{\tan x + 1}}{\frac{1}{\cos x} - \frac{\tan x + 1}{\tan x - 1} + \frac{\tan x - 1}{\tan x + 1}} = r$$

$$\frac{\tan^2 x - 1 + \tan^2 x - 1}{\tan^2 x - 1} = \frac{r \tan^2 x - r}{\tan^2 x - 1} = r \rightarrow r \tan^2 x - r = r \tan^2 x - 1$$

درستی ساده بر $\cos x$ تقسیم کنیم

درستی بر $\cos x$ تقسیم کنیم

$$r \sin^2 x + 1 \cos^2 x - r = \sin^2 x - r \cos^2 x + 1$$

$$r \sin^2 x + 1 \cos^2 x = 1 \rightarrow r \cos^2 x = r \rightarrow \cos^2 x = \frac{r}{r}$$

$$1 + \tan^2 x = \frac{1}{\cos^2 x} = 1 + \tan^2 x = \frac{r}{r} = \tan^2 x = \frac{0}{r}$$

$$\cos(2\pi/a) \rightarrow \cos^2(a) = \frac{1 + \cos 2a}{2}$$

$$\cos^2(2\pi/a) = \frac{1 + \cos 4\pi/a}{2} \rightarrow \cos^2(2\pi/a) = \frac{1 + \frac{\sqrt{r}}{r}}{2} = \frac{r + \sqrt{r}}{2r}$$

$$\cos(2\pi/a) = \frac{\sqrt{r + \sqrt{r}}}{\sqrt{2r}} = \frac{\sqrt{r + \sqrt{r}}}{\sqrt{2r}}$$

$$\sin(4\pi/a) \rightarrow \frac{1 - \cos 2a}{2} \rightarrow \sin(4\pi/a) = 1 - \left(-\frac{\sqrt{r}}{r}\right) = 1 + \frac{\sqrt{r}}{r} = \frac{r + \sqrt{r}}{r}$$

$$\cos 135^\circ = -\frac{\sqrt{2}}{2}$$

$$\sin(4\pi/a) = \frac{\sqrt{r + \sqrt{r}}}{\sqrt{2r}}$$