

$$-\sin 30^\circ \cos 50^\circ + \cos 30^\circ \sin 50^\circ = \sin 20^\circ \quad (15)$$

$$\left(-\frac{1}{2} \times \frac{1}{2}\right) + \left(\frac{\sqrt{3}}{2} \times \frac{\sqrt{3}}{2}\right) = \frac{1}{2} = \sin 20^\circ$$

$$\sin^2 \theta + \cos^2 \theta = 1 \rightarrow \cos^2 \theta = \frac{1}{4}$$

$$\tan \theta = \frac{\sin \theta}{\cos \theta} = \frac{\frac{1}{2}}{\frac{1}{2}} = 1 \quad \tan \theta = \pm 1$$

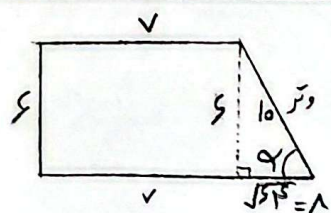
$$\frac{r \tan 30^\circ (1 - \tan 30^\circ)}{1 - \cot^2 30^\circ} = \quad (16)$$

$$\frac{\frac{r\sqrt{3}}{3} \times \left(1 - \frac{1}{\sqrt{3}}\right)}{1 - \frac{1}{3}} = \left(\frac{r\sqrt{3}}{3}\right)$$

$$\tan \theta = \alpha \quad (17)$$

$$\frac{r \sin \theta - \cos \theta}{\sin \theta - r \cos \theta} = \frac{r \tan \theta - 1}{\tan \theta - r}$$

$$\frac{\alpha - 1}{\alpha - r} = (18)$$

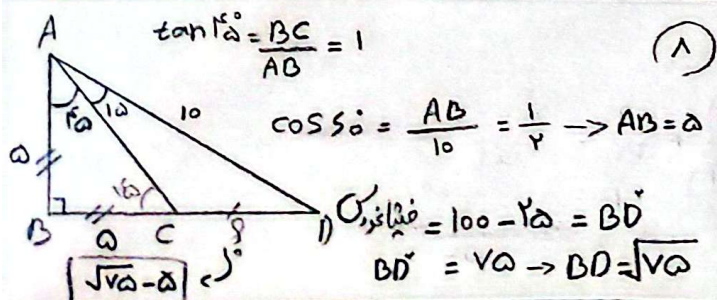


$$\sin \alpha = \frac{s}{10} \quad (19)$$

$$\frac{s}{10} = \frac{s}{10} = \frac{s}{10} \quad (20)$$

$$10^2 = s^2 + v^2 \rightarrow \sqrt{s^2} = (21)$$

$$(38) = s + v + 10 + 1 + v = \text{محيط}$$



$$\tan 30^\circ = \frac{BC}{AB} = 1$$

$$\cos 30^\circ = \frac{AB}{10} = \frac{1}{2} \rightarrow AB = 5$$

$$100 - 25 = BD^2 \rightarrow BD = \sqrt{75}$$

گرام ضربان 10 A

$$\frac{YV}{180} = \frac{\pi}{\pi} \rightarrow \left(\frac{Y\pi}{Y_0}\right) \quad (الف)$$

$$\frac{YV}{180} = \frac{\pi}{\pi} \rightarrow \left(\frac{Y\pi}{Y_0}\right) \quad (ب)$$

$$\frac{\omega\pi}{12} = \frac{\pi}{180} \rightarrow \omega^\circ \quad (ج)$$

$$\frac{\frac{5\pi}{9}}{\pi} = \frac{\pi}{180} \rightarrow 180^\circ \quad (د)$$

$$\frac{\frac{12\omega\alpha}{9}}{\frac{Y_0\alpha}{1}} = \frac{\omega\alpha}{Y_0} = \left(\frac{Y_0\alpha}{Y}\right) \quad (2)$$

$$\frac{\alpha\pi}{\pi} = \left(\frac{Y_0\alpha}{Y}\right) \quad (3)$$

$$\frac{Y_0\alpha}{Y} + \frac{Y_0\alpha}{Y} + 10\alpha = Y_0\alpha = 180^\circ$$

$$\alpha = Y$$

$$\left(\frac{1}{Y} \times \frac{\sqrt{3}}{Y}\right) - \left(\frac{\sqrt{3}}{Y} \times \frac{1}{Y}\right) - 1 + Y = \quad (الف)$$

$$\frac{\sqrt{3}}{Y} - \frac{\sqrt{3}}{Y} - 1 + Y = (1)$$

$$\frac{\left(\frac{\sqrt{3}}{Y}\right)^2 + 1 + \left(\frac{\sqrt{3}}{Y}\right)^2}{\sqrt{3} - \frac{\sqrt{3}}{Y}} = \frac{\frac{13}{Y^2}}{\frac{Y\sqrt{3}}{Y}} = \frac{13}{Y\sqrt{3}} \times \frac{\sqrt{3}}{\sqrt{3}} =$$

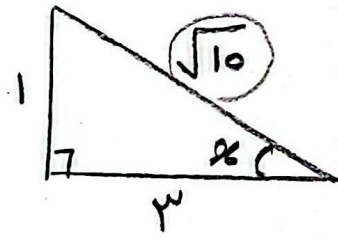
$$\left(\frac{13\sqrt{3}}{18}\right) \quad (ب)$$

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الف) ناصیه سوم

ب) ناصیه ۲

$$\tan \alpha = \frac{1}{3}$$



$$\sin \alpha = \frac{\text{مقابل}}{\text{وتر}} = \frac{1}{\sqrt{10}} = \frac{\sqrt{10}}{10}$$

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$$\boxed{-\frac{\sqrt{10}}{10}}$$

چون ناصیه ۳