

$12) \quad 2V^\circ = (n) \text{ rad}$
 $\frac{2V}{1n_0} = \frac{\text{Rad}}{\pi}$
 $\text{Rad} = 2V \times \frac{\pi}{1n_0} = \frac{2\pi}{1n_0}$

$4) \quad 125^\circ (n) \text{ rad}$
 $\frac{125}{1n_0} = \frac{\text{Rad}}{\pi}$
 $\text{Rad} = 125 \times \frac{\pi}{1n_0} = \frac{125\pi}{1n_0}$

$5) \quad \frac{5\pi}{12} \text{ Rad} = (n)^\circ$
 $\frac{5\pi}{12} = \frac{n}{1n_0}$
 $n = \frac{5\pi}{12} \times \frac{1n_0}{\pi} = 125$

$6) \quad \frac{4\pi}{9} \text{ rad} = (n)^\circ$
 $\frac{4\pi}{9} = \frac{n}{1n_0}$
 $n = \frac{4\pi}{9} \times \frac{1n_0}{\pi} = 100$

$7) \quad \frac{125a}{9} = \frac{\square}{1n_0}$
 $\square = \frac{125 \times 1n_0}{100} = 125a$

$\frac{a\pi}{\pi} = \frac{125a}{1n_0}$
 $a = \frac{125 \times 1n_0}{100} = 125a$

$8) \quad \frac{125a}{9} = \frac{\square}{1n_0}$
 $\square = \frac{125 \times 1n_0}{100} = 125a$

$9) \quad \frac{a\pi}{\pi} = \frac{125a}{1n_0}$
 $a = \frac{125 \times 1n_0}{100} = 125a$

$10) \quad \cos 40^\circ \cos 50^\circ - \sin 40^\circ \sin 50^\circ = \cos 90^\circ = 0$

$11) \quad \tan 40^\circ + \tan 50^\circ + \tan 90^\circ = \frac{(\frac{\sqrt{3}}{3})^2 + 1 + (\sqrt{3})^2}{\sqrt{3} - \frac{\sqrt{3}}{3}} = \frac{1 + 1 + 3}{\frac{2\sqrt{3}}{3}} = \frac{5}{\frac{2\sqrt{3}}{3}} = \frac{15}{2\sqrt{3}}$

$12) \quad \tan \theta = \frac{\sin \theta}{\cos \theta}$
 $\frac{1}{\frac{1}{2}} = \frac{\frac{\sqrt{3}}{2}}{\frac{1}{2}} = \sqrt{3}$
 $\theta = 60^\circ$

$$\frac{r \tan 30^\circ (1 - \tan^2 30^\circ)}{(1 - \cot^2 40^\circ)^2} = \tan \theta$$

یا با سیدی
θ بر حسب رابح

$$\frac{r \times \frac{\sqrt{3}}{3} \times (1 - \frac{1}{3})}{(1 - (\frac{\sqrt{3}}{3})^2)^2} = \frac{\frac{4\sqrt{3}}{9}}{\frac{4}{9}} = \frac{4\sqrt{3}}{4} = \sqrt{3} = \tan \theta$$

$$\theta = 40^\circ$$

(2) ✓

$$\frac{n}{r}$$

س

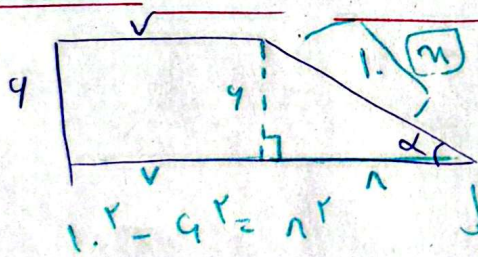
$$\frac{\sin \theta \cos \theta}{\sin \theta \cos \theta}$$

$$\tan \theta = 5 \quad (1)$$

$$\frac{15 \cos \theta - \cos \theta}{5 \cos \theta - \cos \theta} = \frac{14 \cos \theta}{4 \cos \theta} \quad (14)$$

$$\frac{\sin}{\cos} = \frac{5}{1}$$

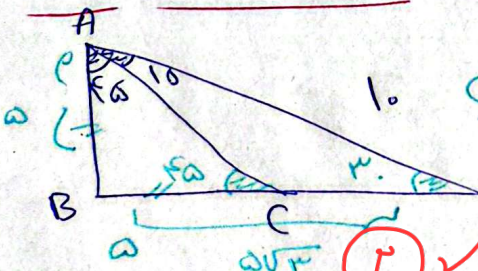
$$5 \cos = \sin$$



$$\sin \alpha = \frac{4}{n} = \frac{4}{1}$$

$$\sin \alpha = \frac{4}{1} \quad n=1 \quad (2)$$

$$1 + 4 + 1 + 4 + 1 = 11$$

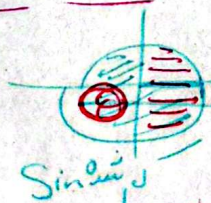


$$\sin 40^\circ = \frac{\sqrt{3}}{2}$$

$$\frac{\sqrt{3}}{2} \times 10 = 5\sqrt{3} = BD \quad (1)$$

$$DC = 5\sqrt{3} - 5 = 5(\sqrt{3} - 1)$$

$$\cos \theta \sin \theta \quad \text{افزایش } \theta \quad (3)$$



نمایم
به سمت + می رود
به سمت - می رود



افزایش θ و $\cos \theta$ هر دو با هم می روند
هر دو به سمت - می روند

(2) ✓

یا سا محمدی
 اتھائی لائن $\sin \alpha$ دربع سوم $\cos \alpha$ ہر دو متقی
 $\tan \alpha = \frac{1}{3}$ ✓

$$\begin{aligned} 3 \sin \alpha &= \cos \alpha \\ (3 \sin \alpha)^2 + \sin^2 \alpha &= 1 \\ 10 \sin^2 \alpha &= 1 \\ \sin^2 \alpha &= \frac{1}{10} \\ \sin \alpha &= \pm \frac{1}{\sqrt{10}} \\ \frac{\sin \alpha}{\cos \alpha} &= \frac{1}{3} \\ &= \frac{\frac{1}{\sqrt{10}}}{\frac{3}{\sqrt{10}}} \end{aligned}$$

جواب دربع سوم پر $-\frac{\sqrt{10}}{10}$ درست است۔

✓ (2)