

الف) $\frac{\frac{3\pi}{180}}{\frac{180}{20}} = \frac{(x) \text{ rad}}{\pi} \rightarrow x = \frac{3\pi}{80} \text{ rad}$

ب) $\frac{\frac{20}{180}}{\frac{180}{24}} = \frac{(x) \text{ rad}}{\pi} \rightarrow x = \frac{25\pi}{24} \text{ rad}$

ج) $\frac{\frac{5\pi}{18}}{\frac{180}{18}} = \frac{(x)^\circ}{180} \rightarrow x = \frac{15}{180 \times 18} = 75^\circ$

د) $\frac{\frac{8\pi}{9}}{\frac{180}{18}} = \frac{(x)^\circ}{180} \rightarrow x = \frac{180 \times 8}{9} = 160^\circ$

$\frac{\frac{125a}{9}}{180} = \frac{(x)^\circ}{180} \rightarrow x = \frac{125a \times 180}{9 \times 180} = 12,5a^\circ$

$\frac{\frac{a\pi}{8}}{\frac{180}{18}} = \frac{(x)^\circ}{180} \rightarrow x = \frac{180 \times a}{8} = 22,5a^\circ$

$10a^\circ + 12,5a^\circ + 22,5a^\circ = 180^\circ \rightarrow 45a^\circ = 180^\circ \rightarrow a = 4$

الف) $(\frac{1}{4} \times \frac{\sqrt{3}}{4}) - (\frac{\sqrt{3}}{4} \times \frac{1}{4}) - 1 + 2 = 1$

ب) $\frac{(\frac{1}{\sqrt{3}})^2 + (1)^2 + (\sqrt{3})^2}{\sqrt{3} - \frac{1}{\sqrt{3}}} = \frac{\frac{1}{3} + 1 + 3}{\frac{2}{\sqrt{3}}} = \frac{\frac{14}{3}}{\frac{2}{\sqrt{3}}} = \frac{14\sqrt{3}}{6} = \frac{7\sqrt{3}}{3} = 4,08$

$0^\circ < \theta < 90^\circ$

$(-\frac{1}{4} \times \frac{1}{4}) + (\frac{\sqrt{3}}{4} \times \frac{\sqrt{3}}{4}) = \sin^2 \theta \rightarrow \frac{\sqrt{3}}{4} = \sin \theta \rightarrow \theta = 45^\circ$

$\tan \theta = \tan 45^\circ = 1$

$0^\circ < \theta < 90^\circ$

با داشتن جوابات به صورت سوال دقت کن!

اصول در مسائل مثلثات زاویه‌های غیر معروف از سه خواسته
دفعه شود رتبه‌ای به ما شین حساب نیت

$2 \times (\frac{1}{\sqrt{3}})(1 - \frac{1}{3}) = \frac{2}{\sqrt{3}} = \tan \theta \rightarrow \theta \approx 49,1^\circ \Rightarrow \frac{49,1}{180} = \frac{?}{\pi} \approx 0,273 \pi \text{ (rad)}$

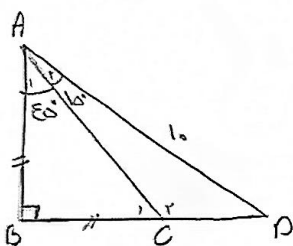
$\tan \theta = \frac{\sin \theta}{\cos \theta} = 2 \rightarrow \sin \theta = 2x, \cos \theta = 1x$

$\frac{3 \times (2x) - 1x}{2x - 1x(1x)} = \frac{14x}{x} = 14$



$$\text{مجموع دزنیف} = 4 + 7 + 10 + 8 + 7 = 38$$

$$\xrightarrow{\text{سب}} AB = ED = V$$



$$\sin 90^\circ = \frac{\sqrt{3}}{2} = \frac{\text{د.م.و}}{\text{ر.م.و}} = \frac{BD}{AD} = \frac{?}{10} \longrightarrow \Delta\sqrt{3}$$

$$AB = \sqrt{10^2 - (\Delta\sqrt{3})^2} = 0$$

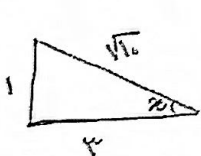
$$\triangle ABC \xrightarrow{\text{المثل}} \underbrace{\hat{B}}_{90^\circ} + \underbrace{\hat{A}_1}_{\varepsilon_0} + \hat{C}_1 = 180^\circ \rightarrow \hat{C}_1 = \varepsilon_0 \rightarrow \hat{A}_1 = \hat{C}_1 \rightarrow AB = BC = \varepsilon$$

$$PC = BD - BC \rightarrow \Delta\sqrt{3} - \Delta$$

الف) $\theta \uparrow \quad \sin \theta \downarrow \rightarrow \text{نقص } \epsilon_2$
 $\theta \uparrow \quad \cos \theta \uparrow \rightarrow \text{نقص } \epsilon_3$ $\left\{ \begin{array}{l} \text{نقص } \epsilon_2 \quad (18^\circ < \theta < 45^\circ) \end{array} \right.$

$\therefore \left. \begin{array}{l} \theta \uparrow \quad \sin \theta \downarrow \rightarrow \text{نامی ۳ و ۲} \\ \theta \uparrow \quad \cos \theta \downarrow \rightarrow \text{نامی ۱ و ۲} \end{array} \right\} \text{نامی ۲} \quad (90^\circ < \theta < 180^\circ)$

$\tan x = \frac{1}{4} = \frac{\text{مقابلہ}}{\text{جانب}}$
 $18^\circ < x < 27^\circ$ (نامیہ فی مثلثاتی)
 $\xrightarrow{\text{دائرہ نامیہ}}$
 $\tan, \cot \Rightarrow +$
 $\sin, \cos \Rightarrow -$



$$\sin x = -\frac{1}{\sqrt{10}}$$

$$P_{\text{ben}} \approx (1 - \text{ben}^r)$$

$$(1 - c \cdot b^{\gamma_{4.}})^{\mu}$$

$$2\sqrt{\frac{r}{c}} \left(1 - \frac{1}{c}\right)$$

$$(1 - \frac{1}{r}, 2)$$

$2\sqrt{2}$

$$\frac{|z|}{|z|^2} = \frac{1}{|z|} = \sqrt{z} \bar{z}$$

$$\tan \theta \leq \sqrt{\mu} \rightarrow \theta \leq \frac{\pi}{4} \leq 45^\circ$$

سوال ۵۵

