

Subject.....

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$$\text{الف) } \frac{D}{180^\circ} = \frac{\text{rad}}{\pi} \Rightarrow \frac{27}{180} = \frac{\pi}{\pi} \Rightarrow \pi = \frac{27\pi}{180} \Rightarrow \pi = \frac{3\pi}{20} \quad (1)$$

$$\text{ب) } \frac{120}{180} = \frac{\pi}{\pi} \Rightarrow \frac{120\pi}{180} = \pi \Rightarrow \pi = \frac{20\pi}{36} \quad (2)$$

$$\text{ج) } \frac{\frac{5\pi}{12}}{\pi} = \frac{\pi}{180} \Rightarrow \pi = \frac{5 \times 180}{12} \Rightarrow \pi = 75^\circ$$

$$\text{د) } \frac{\frac{4\pi}{9}}{\pi} = \frac{\pi}{180} \Rightarrow \frac{4}{9} = \frac{\pi}{180} \Rightarrow \pi = \frac{4}{9} \quad (3)$$

$$\frac{D}{180} = \frac{\text{rad}}{\pi} = \frac{G}{200} \Rightarrow \frac{120a}{9} = \frac{D}{180} \Rightarrow D = 12,0a \quad (4)$$

$$\frac{\frac{a\pi}{1}}{\pi} = \frac{D}{180} \Rightarrow D = \frac{180 \cdot a}{1} = 180a$$

$$\Rightarrow 1 \cdot a + 12,0a + 180a = 180 \Rightarrow 192a = 180 \Rightarrow a = \frac{15}{16}$$

$$\text{الف) } \frac{1}{2} \times \frac{\sqrt{2}}{2} - \frac{\sqrt{2}}{2} \times \frac{1}{2} - 1 + 2 = 1 \quad (5)$$

$$\text{ب) } \frac{\frac{1}{2} + 1 + 2}{\sqrt{2} - \frac{\sqrt{2}}{2}} = \frac{\frac{5}{2}}{\frac{2\sqrt{2} - \sqrt{2}}{2}} = \frac{15\sqrt{2}}{2\sqrt{2} \times \sqrt{2}} = \frac{15\sqrt{2}}{4}$$

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$$-\frac{1}{r} \times \frac{1}{r} + \frac{\sqrt{e}}{r} \times \frac{\sqrt{e}}{r} = \sin^2 \theta \Rightarrow \frac{-1}{e} + \frac{e}{e} = \frac{1}{r} = \sin^2 \theta \quad (r)$$

$$+\frac{1}{\sqrt{r}} = \sin \theta \Rightarrow \pm \frac{\sqrt{r}}{r} = \sin \theta \rightarrow \text{جیب الفتر زاویه حاده} \quad (r)$$

$$\Rightarrow \sin \theta = \frac{\sqrt{r}}{r} \Rightarrow \theta = 20^\circ \quad \tan 20^\circ = 1 \quad (r)$$

$$\frac{r\sqrt{e}}{e} \left(1 - \frac{1}{e}\right) = \frac{r\sqrt{e}}{e} = \sqrt{e} = \tan \theta = \tan 45^\circ \quad (r)$$

$$\left(1 - \frac{1}{e}\right) \left(1 - \frac{1}{e}\right) = \frac{r}{e} \quad \theta = 45^\circ$$

$$\frac{4.}{1\pi.} = \frac{\text{rad}}{\pi} \Rightarrow \text{rad} = \frac{\pi}{4} \quad (r)$$

$$\tan \theta = 8 \Rightarrow \frac{\sin \theta}{\cos \theta} = 8 \Rightarrow \sin \theta = 8 \cos \theta \quad (r)$$

$$\frac{r \sin \theta - \cos \theta}{\sin \theta - r \cos \theta} = \frac{10 \cos \theta - \cos \theta}{8 \cos \theta - r \cos \theta} = \frac{12 \cos \theta}{\cos \theta} = 12 \quad (r)$$

$$\sin \alpha = \frac{\text{ضلع مقابل}}{\text{وتر}} = \frac{4}{10} \quad (r)$$

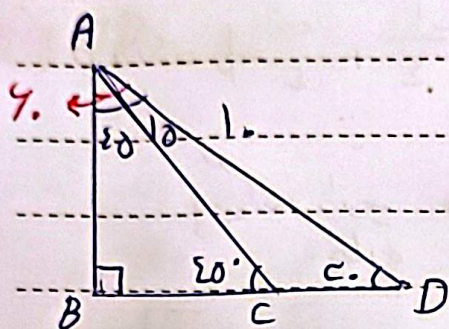
$$(\text{وتر})^2 = (\text{ضلع عمود})^2 + (\text{ضلع مجاور})^2 \quad (r)$$

$$10^2 = 4^2 + (\text{ضلع مجاور})^2 \Rightarrow \text{ضلع مجاور} = 10$$

$$\Rightarrow P_{\text{وزنه}} = V + 4 + V + 1 + 10 = 51 \quad (r)$$

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$$\sin 40^\circ = \frac{1}{2} = \frac{AB}{AD} \Rightarrow AB = 1 \quad (1)$$

$$(AB)^2 + (BD)^2 = (AD)^2$$

$$1^2 + (BD)^2 = 2^2 \Rightarrow BD = \sqrt{3} = \sqrt{3} \quad (2)$$

$$\sin 20^\circ = \frac{\sqrt{3}}{2} = \frac{AB}{AC} \Rightarrow \frac{\sqrt{3}}{2} = \frac{1}{AC}$$

$$\Rightarrow AC = \frac{2}{\sqrt{3}}$$

$$(AC)^2 = (BC)^2 + (AB)^2 \Rightarrow \frac{4}{3} = (BC)^2 + 1 \Rightarrow BC = \frac{1}{\sqrt{3}}$$

$$\Rightarrow BD - BC = CD \Rightarrow \sqrt{3} - \frac{1}{\sqrt{3}} = \frac{2}{\sqrt{3}}$$

بنا بر این محاسبه می شود که جواب نهایی!

(الف) ربع دوم

$$1 + \tan^2 \theta = \frac{1}{\sin^2 \theta} \quad (1)$$

$$1 + \frac{1}{9} = \frac{1}{\sin^2 \theta} = \frac{1}{\cos^2 \theta} \Rightarrow \sin^2 \theta = \frac{9}{10}$$

$$\sin \theta = \pm \frac{3}{\sqrt{10}}$$

$$\sin^2 \theta = 1 - \cos^2 \theta = 1 - \frac{1}{10} = \frac{9}{10} \Rightarrow \sin \theta = \pm \frac{3}{\sqrt{10}}$$

الف) در نامیدوم $\sin n$ از 0 به 1 متغیر می‌گردد پس $\cos n$ از 1 به 0 متغیر می‌گردد پس از 1 به 0 متغیر می‌گردد پس از 1 به 0 متغیر می‌گردد

ب) در نامیدوم $\sin n$ از 1 به 0 متغیر می‌گردد پس $\cos n$ از 0 به 1 متغیر می‌گردد پس از 0 به 1 متغیر می‌گردد پس از 0 به 1 متغیر می‌گردد