

$$\text{الف } 27^\circ = (n) \text{ Rad} \rightarrow \frac{27}{180} = \frac{\text{Rad}}{\pi} = 20 \text{ Rad} = 3\pi \rightarrow \text{Rad} = \frac{3\pi}{20} \quad (1)$$

$$\text{ب) } \frac{125}{180} = \frac{\text{Rad}}{\pi} \rightarrow 34 \text{ Rad} = 25\pi \rightarrow \text{Rad} = \frac{25\pi}{34} \quad (2)$$

$$\text{ج) } \frac{5\pi}{12} = \frac{D}{180} \rightarrow 180(5) = 12D \rightarrow D = 75^\circ$$

$$\text{د) } \frac{4\pi}{9} = \frac{D}{180} \rightarrow 180(4) = 9D \rightarrow D = 80^\circ$$

علامت دجه با علامت نو

$$\frac{125a}{9} = \frac{D}{180} \rightarrow 18 \times 125a = D \quad D = 2250a^\circ \quad (3)$$

$$\frac{a\pi}{1} = \frac{D}{180} \rightarrow 18D = 180a \rightarrow D = 10a^\circ$$

$$2250a^\circ + 10a^\circ + 10a^\circ = 180a^\circ \rightarrow 2270a^\circ = 180a^\circ \rightarrow a = 8^\circ$$

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

$$\text{ب) } \frac{\left(\frac{1}{\sqrt{3}}\right)^2 + 1 + (\sqrt{3})^2}{\sqrt{3} - \frac{1}{\sqrt{3}}} = \frac{\frac{1}{3} + 1 + 3}{\frac{3-1}{\sqrt{3}}} = \frac{\frac{13}{3}}{\frac{2}{\sqrt{3}}} = \frac{13\sqrt{3}}{6}$$

$$-\frac{1}{2} \times \frac{1}{2} + \frac{\sqrt{3}}{2} \times \frac{\sqrt{3}}{2} = -\frac{1}{4} + \frac{3}{4} = \frac{2}{4} = \sin^2 A$$

$$1 + \cot^2 \theta = \frac{1}{\sin^2 \theta} \rightarrow 1 + \cot^2 \theta = \frac{1}{\frac{1}{4}} \rightarrow \cot^2 \theta = 1 \quad \cot \theta = 1 \quad \tan \theta = 1 \quad (5)$$

Year. Month. Date. ()

$$\frac{\gamma\left(\frac{1}{\sqrt{\mu}}\right)\left(1-\frac{1}{\mu}\right)}{\left(1-\frac{1}{\mu}\right)^2} = \frac{\frac{\epsilon}{\mu\sqrt{\mu}}}{\frac{\epsilon}{\mu}} = \frac{1}{\sqrt{\mu}} = \frac{1}{\sqrt{1.5}} = \frac{1}{\sqrt{3}} = \frac{1}{2} \tan \theta \quad (\omega)$$

حیث حاصل 0.5 ← θ ← 30°

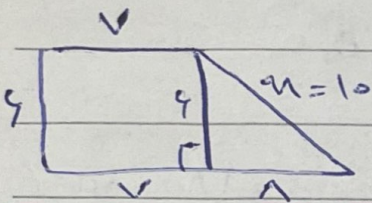
$$\frac{\epsilon_0}{110} = \frac{\eta}{\pi} \rightarrow \pi = \frac{110}{\eta} \rightarrow \eta = \frac{110}{\pi}$$

$$1 + \tan^2 \theta = \frac{1}{\cos^2 \theta} \rightarrow \cos^2 \theta = \frac{1}{1 + \tan^2 \theta} \rightarrow \cos = \pm \frac{1}{\sqrt{1 + \tan^2 \theta}}$$

$$\cos^2 \theta + \sin^2 \theta = 1 \rightarrow \sin^2 \theta = \frac{y_0^2}{r_0^2} \rightarrow \sin \theta = \pm \frac{\omega}{\sqrt{r_0^2}}$$

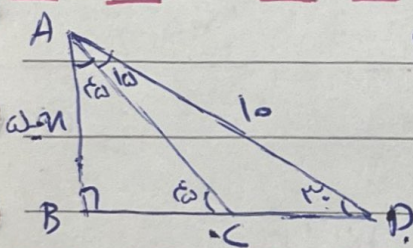
$$\frac{100}{\sqrt{25}} - \frac{1}{\sqrt{25}} = \frac{18}{\sqrt{25}} = 18 \quad \checkmark$$

$$\frac{\omega}{\sqrt{\mu_0}} - \frac{c}{\sqrt{\mu_0}} = \frac{1}{\sqrt{\mu_0}}$$



$$\sin \alpha = \frac{y}{r} \rightarrow \sin = \frac{y}{r} \rightarrow n = 10 \text{ (V}_{10}$$

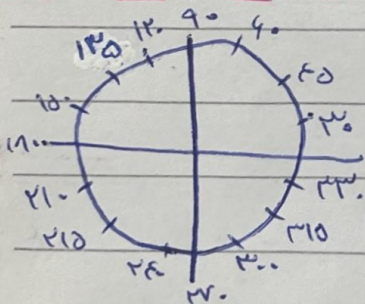
$$10^2 - 6^2 = 98 \rightarrow \sqrt{98} = 1 \quad \underline{10} = 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 = 10$$



$$\sin \hat{D} = \frac{a}{10} = \frac{1}{\sqrt{2}} \rightarrow a = 7$$

$$l_0^2 - a^2 = BD^2 = v_0^2 \rightarrow BD = \sqrt{v_0}$$

$$CD = BD - BC = \sqrt{va} - a = a(\sqrt{v} - 1)$$



(4) الفاء هي مفعول بها تقوم شك مقابل

$$\tan \alpha = \frac{1}{\mu} \rightarrow \cot \alpha = \mu \quad \text{or} \quad 1 + \cot \alpha = \frac{1}{\sin \alpha} \quad (1)$$

$$1 + \mu^2 = \frac{1}{\sin^2 \alpha} \rightarrow 1 + 9 = \frac{1}{\sin^2 \alpha} \rightarrow \sin^2 \alpha = \frac{1}{10} \quad \sin \alpha = \pm \frac{1}{\sqrt{10}}$$

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