

در فیزیک

تاریخ:

$$\rightarrow \frac{100}{128} = \frac{\pi}{2} \rightarrow \frac{180}{128}$$

$$\text{و نیز } \frac{100}{128} = \frac{\pi}{2} = \frac{180}{128}$$

(1)

$$8:00 \quad \rightarrow \frac{100}{128} = \frac{\pi}{2} = \frac{180}{128} \rightarrow 100^\circ$$

$$9:00 \quad 100^\circ \rightarrow \frac{180}{128} \text{ grad} \rightarrow \frac{180}{128} \text{ rad} \rightarrow \frac{\pi}{2} = \frac{180}{128}$$

$$10:00 \quad 100^\circ + \frac{180}{128} + \frac{180}{128} = 100^\circ \rightarrow \frac{180}{128} = 100^\circ \rightarrow a = 100^\circ$$

$$11:00 \quad \cos 40^\circ \cos 10^\circ - \sin 40^\circ \sin 10^\circ = \cos 50^\circ + \cos 50^\circ = 1$$

$$12:00 \quad \frac{1}{\sqrt{r}} + \frac{1}{\sqrt{r}} = \frac{1}{\sqrt{r}} = \frac{1}{\sqrt{r}} = \frac{1}{\sqrt{r}}$$

$$13:00 \quad \sin \theta = -\frac{1}{\sqrt{r}} + \frac{1}{\sqrt{r}} \rightarrow \sin \theta = \frac{\sqrt{r}}{r} \quad \cos^2 \theta + \sin^2 \theta = 1$$

$$14:00 \quad \frac{1}{\sqrt{r}} \cos \theta = 1 \rightarrow \cos \theta = 1 \quad \cos^2 \theta = \frac{1}{r} \rightarrow \cos \theta = \frac{\sqrt{r}}{r}$$

$$\tan \theta = \frac{\sin \theta}{\cos \theta} = \frac{\sqrt{r}}{\frac{\sqrt{r}}{r}} = \sqrt{r}$$

$$15:00 \quad \tan \theta = r \tan 40^\circ (1 - \tan^2 40^\circ) = \frac{r \cdot \frac{1}{\sqrt{r}} (1 - \frac{1}{r})}{(1 - \frac{1}{r})^2} = \frac{\sqrt{r}}{r} = \sqrt{r}$$

$$16:00 \quad \tan \theta = \sqrt{r} \rightarrow \theta = 40^\circ \rightarrow \theta = \frac{\pi}{r} \text{ Rad}$$

$$17:00 \quad \tan \theta = 0 \quad \frac{\sin \theta}{\cos \theta} = 0 \quad \sin \theta = 0 \cos \theta$$

$$18:00 \quad \frac{r \sin \theta - \cos \theta}{\sin \theta - r \cos \theta} = \frac{18 \cos \theta - \cos \theta}{0 \cos \theta - \frac{1}{2}} = \frac{17 \cos \theta}{-\frac{1}{2}} = -34 \cos \theta$$

$$19:00 \quad \cos \theta = 0$$

تاریخ:

$$\sin \alpha = \frac{4}{10}$$

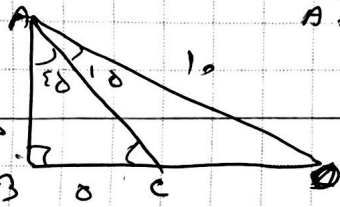


$$\frac{AB}{AC} = \frac{4}{10} = \frac{4}{AC} \Rightarrow AC = 10$$

U

$$BC^2 = AC^2 - AB^2 = 100 - 16 = 84 \Rightarrow BC = \sqrt{84} = 2\sqrt{21}$$

$$P = 4 + 8 + 10 = 22$$



$$A = 40^\circ$$

$$\sin 40^\circ = \frac{BC}{AC} = \frac{8}{10} = \frac{4}{5}$$

$$\cos 40^\circ = \frac{AB}{AC} = \frac{6}{10} = \frac{3}{5}$$

$$\frac{1}{4} \Rightarrow \frac{AB}{AD} = \frac{AB}{10} = \frac{1}{4} \Rightarrow D = 25$$

$$A_1 = C_1 = 50 \Rightarrow AB = DC = 8, AD = 25$$

الف) $\sin \theta = \frac{y}{r}$

انواعی $\cos \theta = \frac{x}{r}$

U

ب) $\sin \theta = \frac{y}{r}$

انواعی $\cos \theta = \frac{x}{r}$

U

$\tan \alpha = \frac{4}{8} \Rightarrow \alpha = \arctan \frac{1}{2}$

$\sin \alpha = \frac{4}{10}$
 $\cos \alpha = \frac{8}{10}$

U

$\frac{\sin \alpha}{\cos \alpha} = \frac{4}{8}$

$\cos \alpha = \frac{8}{10}$

$\sin \alpha + \cos \alpha = 1.0 \Rightarrow \sin \alpha = \frac{\sqrt{10}}{10}$