

Subject:

دوره دهم - فیزیک - ۱۹

کتاب علی بابا

Date:

No:

$$\text{الف) } \frac{r}{\lambda_0} = \frac{\text{rad}}{\pi} \rightarrow \text{rad} = \frac{r \pi}{\lambda_0} = \frac{\pi r}{\lambda_0} \quad \text{ج) } \frac{\omega}{\pi} = \frac{\pi}{\lambda_0} \rightarrow \pi = \frac{\lambda_0 \times \omega}{\pi} = \sqrt{3} \quad (1)$$

$$\text{ب) } \frac{r \omega}{\pi} = \frac{\text{rad}}{\pi} \rightarrow \text{rad} = \frac{r \omega \pi}{\pi} \quad \text{د) } \frac{f}{\pi} = \frac{\pi}{\lambda_0} \rightarrow \pi = \frac{\lambda_0 \times f}{\pi} = \lambda_0$$

$$\frac{G \pi}{\lambda} = \frac{\pi}{\lambda_0} \rightarrow \pi = \frac{\lambda \cdot a}{\lambda_0} \rightarrow \pi = \frac{r \pi}{\omega a} \quad (2)$$

$$\frac{r \omega a}{\pi} = \frac{\pi}{\lambda_0} \rightarrow \frac{\omega a}{\pi} \times \frac{\pi}{\lambda_0} = \pi = \frac{\lambda_0 \times \omega a}{\pi \times \lambda \times \pi} = \frac{r \pi}{\omega a}$$

$$r \omega a + r \pi / \omega a + \lambda_0 a = \lambda_0 \rightarrow f \omega a = \lambda_0 \Rightarrow a = f$$

$$\text{الف) } \left(\frac{1}{\pi} \times \sqrt{3} \right) - \left(\frac{1}{\pi} \times \sqrt{3} \right) - 1 + \pi = 1 \quad (3)$$

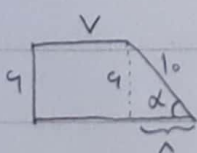
$$\text{ب) } \frac{\frac{1}{\pi} + 1 + \pi}{\sqrt{\pi} - \frac{1}{\sqrt{\pi}}} = \frac{\frac{1\pi}{\pi}}{\frac{\pi}{\sqrt{\pi}}} = \frac{1\sqrt{3}}{9}$$

$$-\frac{1}{f} + \frac{\pi}{f} = \frac{\pi}{f} = \sin \theta \Rightarrow \sin \theta = \frac{\sqrt{\pi}}{\pi} \rightarrow \frac{\sqrt{\pi}}{\pi} \Rightarrow \theta = f \omega \quad (4)$$

$$\frac{r \sqrt{3} \left(\frac{\pi}{f} \right)}{\left(1 - \frac{1}{\pi} \right)^2} = \frac{f \sqrt{3}}{\frac{\pi}{f}} = \frac{f \sqrt{3}}{f} \rightarrow \tan \theta = \sqrt{3} \Rightarrow \theta = 90^\circ \quad (5)$$

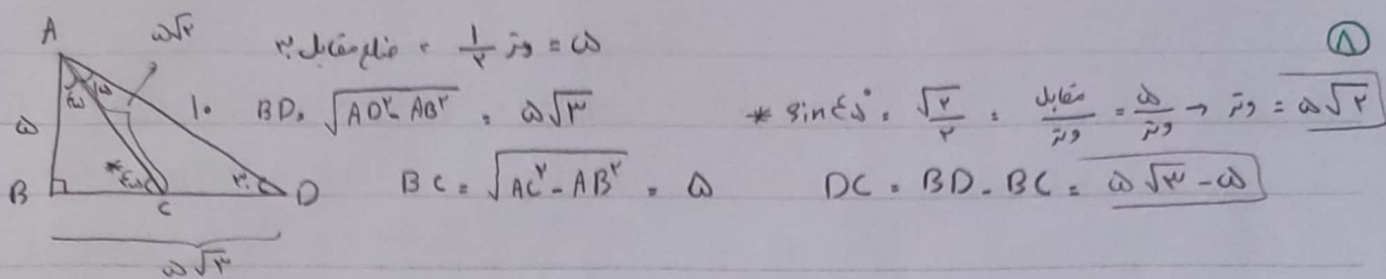
$$\frac{y_0}{\pi \lambda_0} = \frac{\text{rad}}{\pi} \rightarrow \text{rad} = \frac{\pi}{\pi}$$

$$\tan \theta = \frac{\sin \theta}{\cos \theta} = \omega \rightarrow \sin \theta = \omega \cos \theta \rightarrow \frac{1 \omega \cos \theta - \cos \theta}{\omega \cos \theta - f \cos \theta} = 1 f \quad (6)$$



$$\sin \alpha = \frac{9}{10} = \frac{\text{مقابل}}{\text{وتر}} \rightarrow \text{وتر} = 10 \quad \sqrt{100 - 81} = 18 = \text{مقابل}$$

$$\text{مقابل} = 9 + 10 + 18 + 9 = 38$$



④ الف = ربع سفا ← در ربع 3 ← $\sin$ از 0 میره به سمت 1 - / $\cos$ از 1 میره به سمت صفر
 ب = ربع دفا ← در ربع 2 ← $\sin$ از 1 میره به سمت 0 / $\cos$ از 0 میره به سمت 1 -

⑤ در نیمه 3 ← $\sin$ و $\cos$ هر دو منفی
 $\tan \alpha = \frac{\text{مقابل}}{\text{مجاور}} = \frac{1}{3} \rightarrow \text{مقابل} = 1 \text{ و } \text{مجاور} = 3$

$\sin \alpha = \frac{\text{مقابل}}{\text{وتر}} = \frac{-1}{\sqrt{10}} = \frac{-\sqrt{10}}{10}$
 $\text{وتر} = \sqrt{(-3)^2 + (-1)^2} = \sqrt{10}$