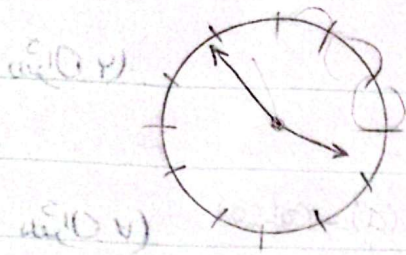


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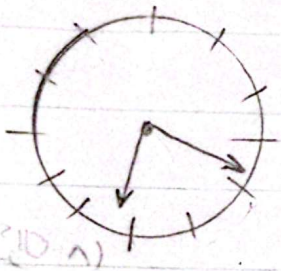


$$K \times 100 = 100$$

$$\omega K = 1 = 100$$

درست حاجی امیر
سؤال (۱) $100 + 20 + 4 = 120$

ب $z = |100M - 100H| = |100 \times \frac{100}{\omega} - 100(100)| = 100V \Rightarrow 100 - 100 = 100$
سؤال (۲)



$$K \times 100 = 90$$

$$100 = 2 = 9$$

$$K \times 9 = 12$$

+ 11

ب $|100M - 100H|$

$$|100 \times 100 - 100 \times 9| = |100|$$

$\Rightarrow 11$

$$S = \frac{q}{r} R^2 = \frac{2\pi \times 10^9 \times 100^2}{4 \times 10^7} = \frac{15\pi}{4}$$

سؤال (۳) $P = Pr + QR = \frac{100}{4} + \frac{\pi}{4} \times 100 = 4 + \frac{\pi}{4}$

$$S = \frac{1}{r} \times ab \times ac \times \sin A = \frac{1}{r} \times 100 \times 100 \times \frac{\sqrt{3}}{2} = 100\sqrt{3}$$

سؤال (۴)

$$a = \sqrt{b^2 + c^2 - 2bc \cos A} = \sqrt{4^2 + 2^2 - 16 \times \frac{1}{2}} = \sqrt{19} = 3$$

$$P = V + \omega + 1 = 100 \text{ cm}$$

سؤال (۵) $\frac{100\sqrt{r}}{\sin B} = \frac{100}{\sin A} = \frac{c}{\sin C} = \frac{100\sqrt{r}}{\sin B} = \frac{100}{\frac{1}{r}} = \frac{100\sqrt{r}}{\sin B} = \frac{100}{1} \Rightarrow \sin B = \frac{100\sqrt{r}}{100} = \frac{\sqrt{r}}{r}$

$\Rightarrow \sin B = \frac{\sqrt{r}}{r} \Rightarrow B = 100 \Rightarrow C = 100 \Rightarrow B = \frac{\pi}{4} \text{ و } C = \frac{\sqrt{r}}{9}$

100 $\times \frac{\pi}{100} =$

$\frac{100 \times \pi}{100} =$

$$\frac{-\tan(a) + \tan(a)}{-\tan(a) - \tan(a)} = \frac{\tan(a)}{-\tan(a)} = -1$$

سوال 4

$$\Rightarrow \tan \alpha = a$$

$$A. \frac{\tan(\frac{\pi}{2} - \alpha) + \tan(\frac{\pi}{2} + \alpha)}{\tan(\frac{\pi}{2} - \alpha) + \tan(\frac{\pi}{2} + \alpha)} = \frac{\cot(a) - \cot(a)}{-\tan(a) - \cot(a)}$$

سوال 5

$$\frac{\frac{\frac{1}{a}}{\cot(\frac{\pi}{4})}}{\frac{\frac{1}{a} - \frac{1}{a}}{a}} = \frac{1}{-1}$$

$$\div \cos m \rightarrow \frac{\tan m + 1}{\tan m - 1} + \frac{\tan m - 1}{\tan m + 1} = k$$

سوال 6

$$\frac{(\tan m + 1)(\tan m + 1) + (\tan m - 1)(\tan m - 1)}{(\tan m - 1)(\tan m + 1)} = \frac{\tan^2 m + 1 + \tan^2 m + 1 - 2\tan m}{\tan^2 m - 1}$$

$$\frac{k \tan^2 m + 1}{\tan^2 m - 1} = k \Rightarrow k \tan^2 m - k = k \tan^2 m + 1 \Rightarrow \tan^2 m = \frac{1}{2} \Rightarrow \tan m = \pm \frac{1}{\sqrt{2}}$$

$$\div \cos^2 \rightarrow \frac{\tan^2 m - k \tan^2 m + 1}{\tan^2 m + 1 - (k \tan^2 m + 1)} = \frac{\tan^2 m + \tan^2 m - 1}{1} = k \Rightarrow \tan^2 m - 1 = k$$

$$\Rightarrow k \tan^2 m = \frac{1}{2} \Rightarrow \tan^2 m = \frac{1}{2k}$$

$$الف) \cos^2 \alpha = \cos^2 \alpha - \sin^2 \alpha \Rightarrow \cos^2 \alpha = \cos^2 \alpha - \sin^2 \alpha$$

سوال 10

$$\frac{\sqrt{r}}{r} \Rightarrow \cos^2 \alpha - \sin^2 \alpha$$

$$1 \Rightarrow \cos^2 \alpha + \sin^2 \alpha$$

$$\left. \begin{aligned} r \cos^2 \alpha &= \frac{\sqrt{r}}{r} + 1 \\ r \cos^2 \alpha &= \frac{\sqrt{r} + r}{r} \end{aligned} \right\} \Rightarrow \cos^2 \alpha = \frac{\sqrt{r} + r}{r} \Rightarrow \cos \alpha = \frac{\sqrt{r} + r}{r}$$

$$ب) \sin(4\alpha) = \cos(r\alpha) \Leftrightarrow \cos(r\alpha) \text{ ان } \frac{r\alpha}{2} \text{ و } \frac{r\alpha}{2} \text{ و } \frac{r\alpha}{2}$$

$$\Rightarrow \frac{\sqrt{r} + r}{r}$$

$$\frac{\sqrt{r} + r}{r}$$