

Subject: (

☆ ۲. آفرین +

امروزه

Date: _____

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$$12 \times 4 = 48^\circ$$

$$12 + 48 + 4 = 64^\circ$$

سوال ۱

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$$\alpha = |5, 45 - 3, 4| \Rightarrow \alpha = |5, 4 \times 45 - 3 \times 4| = |20, 7| = 20, 7^\circ$$

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$$2 \times 3 = 6^\circ$$

$$2 \times 4 = 8^\circ$$

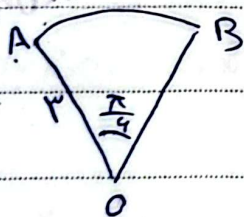
$$12 \div 2 = 6^\circ$$

$$6 + 6 + 8 = 19^\circ$$

سوال ۲

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$$\alpha = |5, 45 - 3, 4| = \alpha = |5, 4 \times 11 - 3 \times 4| = |11| = 11^\circ$$



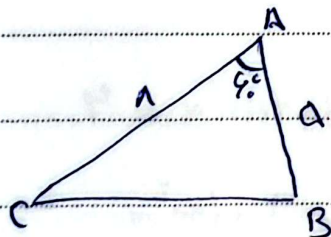
$$S = \frac{\alpha}{2} R^2 = \frac{\pi}{12} \times 9 = \frac{3\pi}{4}$$

$$P = 3 + 3 + \alpha R = \frac{\pi}{12} \times 9$$

سوال ۳

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ب



سوال ۴

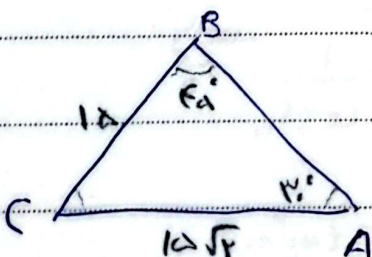
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ب

$$\frac{1}{2} \times 1 \times 1 \times \frac{\pi}{4} = \frac{\pi}{8}$$

$$BC = \sqrt{1^2 + 1^2 - 2 \times 1 \times 1 \times \frac{1}{2}} = 1$$

$$1 + 1 + 1 = 3$$



سوال ۵

$$\frac{1}{\sin 45^\circ} = \frac{1/\sqrt{2}}{\sin B} = 2 \Rightarrow \sin B = \frac{1/\sqrt{2}}{2}$$

$$B = 45^\circ \Rightarrow 45 \times \frac{\pi}{180} = \frac{\pi}{4}$$

$$1 - 1 = 0 \Rightarrow 1 \times \frac{\pi}{180} = \frac{\pi}{180}$$

Arman

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

جواب

جواب

$$A = \frac{r \tan(\frac{\pi}{4} - \alpha) + \tan(\frac{\pi}{4} + \alpha)}{r \tan(\pi - \alpha) - \tan(\frac{\pi}{4} - \alpha) - r \tan(\alpha) - \cot(\alpha)}$$

$$\tan \frac{\pi}{4} = a \quad \frac{1}{a} \div \frac{r a^2 - 1}{a} = -\frac{1}{r a^2 + 1}$$

$$\cot \frac{\pi}{4} = \frac{1}{a}$$

$$\frac{(\sin \alpha + \cos \alpha)^2 + (\sin \alpha - \cos \alpha)^2}{\sin^2 \alpha - \cos^2 \alpha} = \frac{\sin^2 \alpha + \cos^2 \alpha + r \sin \alpha \cos \alpha + \sin^2 \alpha + \cos^2 \alpha - r \sin \alpha \cos \alpha}{1 - r \cos^2 \alpha}$$

جواب

$$\frac{1 - \cos^2 \alpha}{1 - r \cos^2 \alpha} = r \Rightarrow r = \frac{1}{1 - r \cos^2 \alpha} \Rightarrow r = \frac{1}{4} \cos^2 \alpha$$

$$-r \cos^2 \alpha = -1 \quad \cos^2 \alpha = \frac{1}{4} \Rightarrow 1 + \tan^2 \alpha = 4$$

$$\tan^2 \alpha = 3 \quad \tan \alpha = \sqrt{3}$$

$$\frac{\sin^2 x - r \cos^2 x + 1}{\sin^2 x + r \cos^2 x - 1} = r$$

$$\div \cos^2$$

$$\frac{\tan^2 x - r}{\tan^2 x + r} = \frac{1 - \tan^2 x}{1 + \tan^2 x}$$

جواب

$$\frac{r \tan^2 x - 1}{1} = r \Rightarrow r \tan^2 x - 1 = r$$

$$r \tan^2 x = 2$$

$$\tan^2 x = \frac{2}{r} = r, \Delta$$

Arman

$$\cos(2\theta, \Delta) \quad \cos^2 \alpha = \frac{1 + \cos 2\alpha}{2} \Rightarrow \cos^2 \alpha = \frac{1 + \frac{\sqrt{r}}{r}}{2} \quad (1.0) \quad \text{و}$$

$$\frac{1 + \frac{\sqrt{r}}{r}}{2} = \cos^2(2\theta, \Delta)$$

$$\cos(2\theta, \Delta) = \pm \frac{\sqrt{1 + \frac{\sqrt{r}}{r}}}{2} \quad \text{و}$$

$$\sin(4\theta, \Delta) \quad \sin^2 \alpha = \frac{1 - \cos 2\alpha}{2} = \frac{1 - \frac{\sqrt{r}}{r}}{2} \Rightarrow$$

$$\sin 4\theta, \Delta = \pm \frac{\sqrt{1 - \frac{\sqrt{r}}{r}}}{2} \quad \text{و}$$