

نام و نام خانوادگی ..... نام و نام خانوادگی ..... پاسخنانه تشریحی تکلیف شماره ۱۹ کلاس ..... (هم درج)

(الف)

$\rightarrow \alpha = 12^\circ + 27^\circ + 9^\circ = 153^\circ$

$\frac{M}{V} = 27^\circ$

$\alpha = |5.5M - 30H| = |29.7 - 9.0| = 20.7^\circ$

$\xrightarrow{\text{کمر از } 180^\circ} 34.0^\circ - 20.7^\circ = 153^\circ$

ب

(الف)

$\rightarrow \alpha = 9^\circ + 30^\circ + 30^\circ + 12^\circ = 111^\circ$

$\frac{M}{V} = 9^\circ$

$\alpha = |5.5M - 30H| = |9.9 - 11.0| = 11^\circ$

ب

(الف)  $\sum \frac{\alpha}{r} R^2 = \frac{\pi}{2} \times 3^2 = \frac{9\pi}{2} = \frac{3\pi}{2} \text{ cm}^2$

(ب)  $\text{مساحت} = \alpha R + 2R = (\frac{\pi}{2} \times 3) + 2(3) = \frac{\pi}{2} + 6 \text{ cm}$

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(الف)  $\sum \text{مساحت} = \frac{1}{2} ab \sin \alpha = \frac{1}{2} (1)(d) (\sin 60^\circ) = 10\sqrt{3} \text{ (cm)}^2$

(ب)  $\Rightarrow a = \sqrt{b^2 + c^2 - 2bc \cos A} = \sqrt{4^2 + 5^2 - 2(4)(5) \cos 60^\circ} = \sqrt{19 - (10)(\frac{1}{2})} = 3$

مساحت a و b و c  
۵ ۴ ۳

$\Rightarrow \text{مساحت} = a + b + c = 3 + 4 + 5 = 12$

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$\hat{A} + \hat{B} + \hat{C} = 180^\circ \Rightarrow \hat{A} = 30^\circ \rightarrow \text{مقابل} : \frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C} \rightarrow \frac{15}{\sin(30^\circ)} = \frac{15\sqrt{2}}{\sin(B)}$

$\rightarrow \hat{B} + \hat{C} = 150^\circ \Rightarrow \hat{C} = 150^\circ$

$\frac{D}{180} = \frac{\text{Rad}}{\pi}$

$\hat{B} \Rightarrow \frac{150^\circ}{180} = \frac{\pi}{6} \Rightarrow \hat{B} = \frac{\pi}{6}$

$\hat{C} \Rightarrow \frac{150^\circ}{180} = \frac{\pi}{6} \Rightarrow \hat{C} = \frac{7\pi}{12}$

$\sin B = \frac{15\sqrt{2} \times \frac{1}{2}}{15} = \frac{\sqrt{2}}{2}$

ب برابر ۳۰ است

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

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$$\frac{\pi}{12} \text{ s } \frac{D}{120} \rightarrow D = 10^\circ \Rightarrow \tan 10^\circ = a \quad \left\{ \begin{array}{l} \gamma \tan(\frac{\pi}{4} - 10^\circ) + \tan(\frac{\pi}{4} + 10^\circ) = \frac{\gamma \cot(10^\circ) - \cot(10^\circ)}{\gamma \tan(10^\circ) - \cot(10^\circ)} \end{array} \right.$$

$$\text{Condition's } \frac{1}{\tan 10^\circ} \text{ s } a \quad A: \frac{\gamma}{a} - \frac{1}{a} = \frac{\frac{1}{a}}{\frac{-\gamma a - 1}{a}} = \frac{-1}{\gamma a + 1}$$

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$$\frac{\sin \alpha + \cos \alpha}{\sin \alpha - \cos \alpha} + \frac{\sin \alpha - \cos \alpha}{\sin \alpha + \cos \alpha} \xrightarrow{\text{جواب}} \frac{\sin^2 \alpha + \cos^2 \alpha + \gamma \sin \alpha \cos \alpha}{(\sin \alpha + \cos \alpha) + (\sin \alpha - \cos \alpha)} \text{ s } \frac{\gamma (\sin^2 \alpha + \cos^2 \alpha)}{-\cos 2\alpha} = \gamma$$

$$\rightarrow \cos 2\alpha = \frac{-\gamma}{\gamma} \rightarrow \tan \gamma \alpha \text{ s } \frac{\sin \gamma \alpha}{\cos \gamma \alpha} \text{ s } \frac{1 - \cos \gamma \alpha}{1 + \cos \gamma \alpha} = \frac{1 + \frac{\gamma}{\gamma}}{1 - \frac{\gamma}{\gamma}} \text{ s } \frac{\frac{\gamma}{\gamma}}{\frac{1}{\gamma}} = \underline{D}$$

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$$\begin{aligned} \sin^2 \alpha + 1 - \cos^2 \alpha &= \gamma \sin^2 \alpha - \cos^2 \alpha \\ \sin^2 \alpha + \cos^2 \alpha - (1 - \cos^2 \alpha) &= \cos^2 \alpha \\ \sin^2 \alpha &= \cos^2 \alpha \\ \tan^2 \alpha &= \frac{\sin^2 \alpha}{\cos^2 \alpha} = \frac{1}{\gamma} = \gamma \Rightarrow \tan \alpha = \frac{1}{\gamma} \end{aligned}$$

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$$\text{الف) } \cos(45^\circ) \sim \cos^2 \alpha = \frac{1 + \cos 2\alpha}{2} \rightarrow \cos^2(45^\circ) = \frac{1 + \cos(90^\circ)}{2} = \frac{1 + 0}{2} = \frac{1}{2}$$

$$\rightarrow \cos(45^\circ) \text{ s } \sqrt{\frac{1 + \cos 90^\circ}{2}} = \frac{\sqrt{1 + 0}}{2} = \frac{1}{2}$$

$$\begin{aligned} \text{ب) } \sin(45^\circ) \text{ s } \frac{1 - \cos(90^\circ)}{2} &= \frac{1 - 0}{2} = \frac{1}{2} \\ \sin(45^\circ) &= \frac{1}{2} \end{aligned}$$

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