نام و نام خانوادگی ....پرنیان دهقان پور.... پاسخنامه تشریحی تکلیف شماره ..19.. کلاس ..دهم دفتر A.......

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$12(30)+6+\frac{54}{2}=153°$

$|5.5m-30H|$

$|5.5(54)-30(12)|=207°$

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$2(30)+12(6)+\frac{18}{2}=81°$

$|5.5(18)-30(6)|=81°$

۹۹ — ۱۸۰

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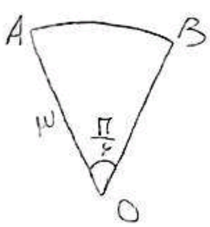

$S=\frac{\alpha}{2}R^2$ — $\frac{\pi/6}{2}\times 3^2=\frac{\pi}{12}\times 9=\frac{3\pi}{4}$ ⇐ مساحت قطاع

$\widehat{AB}=\alpha R$

$\frac{\pi}{6}\times 3=\frac{\pi}{2}+6$ ⇐ محیط قطاع

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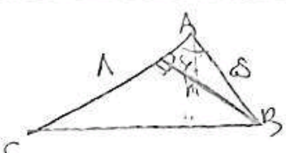

مساحت ⇐ $\frac{1}{2}AB\sin\alpha=\frac{1}{2}\times 8\times 5\times\frac{\sqrt{3}}{2}=10\sqrt{3}$

$\frac{8\times h}{2}=10\sqrt{3}$ — $4h=10\sqrt{3}$ — $h=\frac{5\sqrt{3}}{2}$

محیط ⇐ $8+5+\frac{\sqrt{331}}{2}=\frac{13\sqrt{331}}{2}$

$(8)^2+\left(\frac{5\sqrt{3}}{2}\right)^2=\frac{256}{4}+\frac{75}{4}=\sqrt{\frac{331}{4}}=\frac{\sqrt{331}}{2}$

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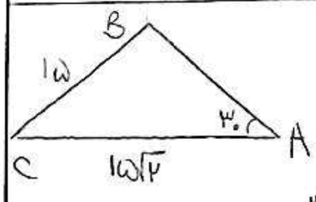

$\frac{a}{\sin A}=\frac{b}{\sin B}=\frac{c}{\sin C}$

B حاده است پس $=45°$ ⇐ $\frac{\pi}{4}$

C ← $105°$ → $\frac{7\pi}{12}$

$\frac{15}{\frac{1}{2}}=\frac{15\sqrt{2}}{\sin B}$ → $\frac{15\sqrt{2}}{30}=\frac{\sqrt{2}}{2}$

$180-(45+30)=105=C$

$\frac{105}{180}=\frac{\quad}{\pi}$ — $\frac{7\pi}{12}$

$$\frac{-\tan\alpha + 3\tan\alpha}{-\tan\alpha - \tan\alpha} = \frac{+2\tan\alpha}{-2\tan\alpha} = -1$$

۶

$$\frac{2\tan\left(\frac{\pi}{2} - 10^\circ\right) + \tan\left(\frac{\pi}{2} + 10^\circ\right)}{3\tan\left(\frac{18\pi}{2} - 10^\circ\right) - \tan\left(\frac{27\pi}{2} - 10^\circ\right)}$$

$$\tan\frac{\pi}{18} = 10^\circ = a \qquad \cot = \frac{1}{a}$$

$$\frac{2\cot 10^\circ + (-\cot 10^\circ)}{-3\tan 10^\circ - (+\cot 10^\circ)} = \frac{\cot 10^\circ}{-3\tan 10^\circ - \cot 10^\circ}$$

$$\frac{\frac{1}{a}}{-3(a) - \frac{1}{a}} = \frac{\frac{1}{a}}{\frac{-3a^2 - 1}{a}} = \frac{1}{-3a^2 - 1} = -\frac{1}{3a^2 + 1}$$

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$$\sin^2\alpha + \cos^2\alpha + 2\cos\alpha\sin\alpha + \sin^2\alpha + \cos^2\alpha = 2\sin\alpha\cos\alpha$$

$$\sin^2\alpha - \cos^2\alpha$$

$$\frac{2\sin^2\alpha + 2\cos^2\alpha}{\sin^2\alpha - \cos^2\alpha} = 3 \qquad \frac{\frac{2\sin^2\alpha}{\sin^2\alpha} + \frac{2\cos^2\alpha}{\sin^2\alpha}}{\frac{\sin^2\alpha}{\sin^2\alpha} - \frac{\cos^2\alpha}{\sin^2\alpha}} = \frac{2 + 2\cot^2\alpha}{1 - \cot^2\alpha} = 3$$

$$3 - 3\cot^2\alpha = 2 + 2\cot^2\alpha \qquad 1 = 5\cot^2\alpha \qquad \frac{1}{5} = \cot^2\alpha \qquad \tan^2\alpha = 5$$

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$$\sin^2\alpha - \cos^2\alpha + \sin^2\alpha - (-\cos^2\alpha + 1) = 4 \qquad \frac{2\sin^2\alpha - \cos^2\alpha}{\cos^2\alpha} = 4$$

$$\sin^2\alpha + \cos^2\alpha + (\cos^2\alpha - 1) = \sin^2\alpha$$

$$\frac{\frac{2\sin^2\alpha}{\cos^2\alpha} - \frac{\cos^2\alpha}{\cos^2\alpha}}{\frac{\cos^2\alpha}{\cos^2\alpha}} = \frac{2\tan^2\alpha - 1}{1} = 4 \qquad 2\tan^2\alpha = 5 \qquad \tan^2\alpha = \frac{5}{2}$$

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$$\cos(22,5^\circ) \Rightarrow \qquad \cos^2\alpha = \frac{1 + \cos(2\alpha)}{2}$$

$$\cos^2 22,5^\circ = \frac{1 + \frac{\sqrt{2}}{2}}{2} \qquad \cos 22,5^\circ = \pm\sqrt{\frac{1 + \frac{\sqrt{2}}{2}}{2}} = \frac{\sqrt{2 + \sqrt{2}}}{2}$$

$$\sin^2\alpha = \frac{1 - \cos 2\alpha}{2}$$

$$\sin(67,5^\circ) \Rightarrow \pm\sqrt{\frac{1 + \frac{\sqrt{2}}{2}}{2}} = \frac{\sqrt{2 + \sqrt{2}}}{2}$$

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