

ایک برائے جواب ہے

(الف) $\frac{1}{T} \times 24 \times 27 \Rightarrow 4 + 12 + 27 = 43$ ✓

(ب) $|24 \times 27 - 9.8| = 2.7 \rightarrow 43 - 2.7 = 40.3$ ✓

(الف) $|12 + 6 + 9 + 11|$ ✓ } (ب) $|24 \times 11 - 11.8| = 11$ ✓

(الف) $S = \frac{a}{T} R^2 = \frac{a}{11} \times 9 = \frac{9a}{11}$ ✓ (ب) $4 \times a R = 4 + \frac{a}{11}$ ✓

(الف) $S = \frac{1}{T} \times \frac{\sqrt{P}}{T} \times 1 \times 2$ ✓ (ب) $CB = \frac{15}{\sqrt{P}} \Rightarrow P = \frac{15}{\sqrt{CB}} \times 15$ ✓

$\sin \frac{10}{9} \rightarrow \frac{10}{\sin A} = \frac{10\sqrt{P}}{\sin B} \Rightarrow \frac{10\sqrt{P}}{\sin B} = \frac{1}{B} = \frac{P}{T}$ ✓

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

$\frac{\tan (\frac{\pi}{T} - a) + \tan (\frac{\pi}{T} + a)}{\tan (\pi - a) - \tan (\frac{\pi}{T} - a)} = \frac{\cot a}{-\tan a - \cot a} = \frac{1}{-\tan^2 a - 1}$

$\frac{\sin^2 + \cos^2 + 2\cos \sin + \sin^2 + \cos^2 - 2\cos \sin}{\sin^2 - \cos^2} \Rightarrow \frac{2}{1 - \cos^2}$

$\cos^2 = \frac{1}{4} \Rightarrow \sin^2 = \frac{3}{4} \Rightarrow \tan = \frac{\frac{3}{4}}{\frac{1}{4}} = 3$ ✓

$$\frac{\sin^2 - 2\cos^2 + \sin^2 + \cos^2}{\sin^2 + 2\cos^2 - \sin^2 - \cos^2} = \frac{2\sin^2 - \cos^2}{\cos^2} = 2 \quad (39)$$

$$\cos^2 = 2\sin^2 \Rightarrow \tan^2 = \frac{1}{2} \quad \checkmark$$

$$\text{لن) } \cos^2(r, 0) = \frac{1 + \cos 60^\circ}{2} = \frac{1 + \frac{1}{2}}{2} = \frac{3}{4} \quad \checkmark \quad (6)$$

$$\text{ي) } \sin^2(r, 0) = \frac{1 - \cos 60^\circ}{2} = \frac{1 - \frac{1}{2}}{2} = \frac{1}{4} \quad \checkmark$$

الف) $S_{ABC} = \frac{1}{2} AB \times AC \times \sin 90^\circ =$

$$\frac{1}{2} \times 5 \times 1 \times \frac{\sqrt{3}}{2} = 1.5\sqrt{3}$$

سؤال 14

ب) $BC^2 = AB^2 + AC^2 - 2AB \cdot AC \cos 90^\circ$

$$\rightarrow BC^2 = 25 + 1 - 2 \times 5 \times 1 \times \frac{1}{2} = 24 \rightarrow BC = 2$$

$$P_{ABC} = 5 + 1 + 2 = 8$$

$$\frac{\pi}{12} \times \frac{180^\circ}{\pi} = 15^\circ$$

سؤال 15

$$A = \frac{2 \tan(\frac{\pi}{4} - 15^\circ) + \tan(\frac{\pi}{4} + 15^\circ)}{3 \tan(17 - 15^\circ) - \tan(\frac{3\pi}{4} - 15^\circ)} = \frac{2 \cot 15^\circ - \cot 15^\circ}{-3 \tan 15^\circ - \cot 15^\circ} =$$

$$\frac{\cot 15^\circ}{-3 \tan 15^\circ - \cot 15^\circ} = \frac{\frac{1}{a}}{-3a - \frac{1}{a}} = \frac{-1}{3a^2 + 1}$$