

الف) $\frac{D}{11.0} = \frac{rad}{\pi} \rightarrow \frac{27}{11.0} = \frac{x}{\pi} = x = \frac{27\pi}{11.0} \rightarrow \frac{3\pi}{2}$

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ب) $\frac{125}{11.0} = \frac{x}{\pi} \Rightarrow \frac{125\pi}{11.0} = \frac{25}{4}\pi$

ج) $\frac{\frac{a}{12}\pi}{\pi} = \frac{x}{11.0} \rightarrow x = \frac{a \times 11.0}{12} = 7a^\circ$

د) $\frac{\frac{3\pi}{9}}{\pi} = \frac{x}{11.0} \rightarrow \frac{3}{9} = \frac{x}{11.0} \rightarrow x = 1.1$

$\frac{D}{11.0} = \frac{rad}{\pi} = \frac{G}{2.0} \rightarrow \frac{125}{9} a = \frac{D}{11.0} \rightarrow D = 125.0a$

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$\frac{a\pi}{\frac{1}{\pi}} = \frac{D}{11.0} \rightarrow D = \frac{11.0a}{1} = 25.0a$ $1.0a + 125.0a + 125.0a = 11.0 \rightarrow 250a = 11.0$
 $a = \frac{11}{250}$

الف) $\frac{1}{\sqrt{2}} \times \frac{\sqrt{2}}{\sqrt{2}} - \frac{\sqrt{2}}{\sqrt{2}} \times \frac{1}{\sqrt{2}} - 1 + 2 = 1$

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ب) $\frac{\frac{1}{\sqrt{2}} + 1 + \sqrt{2}}{\sqrt{2} - \frac{\sqrt{2}}{\sqrt{2}}} = \frac{\frac{1\sqrt{2}}{\sqrt{2}}}{\frac{\sqrt{2}\sqrt{2}}{\sqrt{2}}} = \frac{1\sqrt{2}}{\sqrt{2}} = \frac{1\sqrt{2}}{\sqrt{2}} = \frac{1\sqrt{2}\sqrt{2}}{2}$

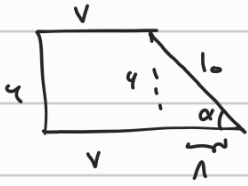
$-\frac{1}{\sqrt{2}} \times \frac{1}{\sqrt{2}} + \frac{\sqrt{2}}{\sqrt{2}} \times \frac{\sqrt{2}}{\sqrt{2}} = \sin^2 \theta \Rightarrow \frac{-1}{2} + \frac{2}{2} = \frac{1}{2} = \sin^2 \theta$ $\sin \theta = \pm \frac{1}{\sqrt{2}} = \pm \frac{\sqrt{2}}{2}$
 $45^\circ = \theta \rightarrow \frac{\sqrt{2}}{2} = \sin \theta$ مقدار مثبت را می‌گیریم
 $\tan 45^\circ = 1$

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$\frac{\frac{\sqrt{2}}{\sqrt{2}} (1 - \frac{1}{\sqrt{2}})}{(1 - \frac{1}{\sqrt{2}})(1 - \frac{1}{\sqrt{2}})} = \frac{\frac{\sqrt{2}}{\sqrt{2}}}{\frac{\sqrt{2}}{\sqrt{2}}} = \sqrt{2} = \tan \theta = \tan 40^\circ \rightarrow \theta = 40^\circ \rightarrow \frac{40}{11.0} = \frac{rad}{\pi} \rightarrow rad = \frac{\pi}{11}$

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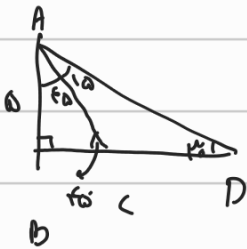
$$\tan \theta = 5 \quad \frac{\sin \theta}{\cos \theta} = 5 \rightarrow \sin \theta = 5 \cos \theta \quad \frac{5 \sin \theta - \cos \theta}{\sin \theta - 5 \cos \theta} = \frac{12 \cos \theta - \cos \theta}{5 \cos \theta - 5 \cos \theta} = \frac{11 \cos \theta}{0} = 12 \quad -4$$



$$\sin \alpha = \frac{\text{ضلع مقابل}}{\text{م}} = \frac{4}{5}$$

$$(\bar{m})^2 = (\text{ضلع عمود})^2 + (\text{ضلع اب})^2 \quad 100 = 16 + (\text{ضلع اب})^2 \Rightarrow \text{ضلع اب} = 8$$

$$\text{دائریہ} = 4 + 16 + 1 + 10 = 31$$



$$\sin \angle A = \frac{1}{5} = \frac{AB}{AD} \Rightarrow AB = 5$$

$$(AB)^2 + (BD)^2 = (AD)^2$$

$$25 + (BD)^2 = 100 \rightarrow BD = \sqrt{75} = 5\sqrt{3}$$

$$\sin \angle A = \frac{\sqrt{2}}{5} = \frac{AB}{AC} \Rightarrow \frac{\sqrt{2}}{5} = \frac{5}{AC} \rightarrow AC = 25 \rightarrow BC = 5$$

$$AC^2 = BC^2 + AB^2 = 25 = BC^2 + 20 \rightarrow 5 = BC^2 \Rightarrow BC = 5$$

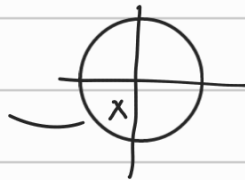
$$BD - BC = CD \rightarrow 5\sqrt{3} - 5$$

ب (ب) مع

9 - الف (ب) مع

$$\tan x = \frac{1}{4}$$

$$\sin x, \cos x$$



$$\tan x = \frac{\sin x}{\cos x} = \frac{1}{4} \Rightarrow \frac{\sin x}{\cos x} = -1 \quad \text{نقطہ} = -1$$

$$\bar{m} = \sqrt{(-3)^2 + (-1)^2} \rightarrow \bar{m} = \sqrt{10}$$

$$\sin x = \frac{\text{ضلع مقابل}}{\bar{m}} = \sin x = \frac{-1}{\sqrt{10}} = -\frac{\sqrt{10}}{10}$$