

۲۰ عاثر نوشتاری

$$\frac{27^\circ}{110} = \frac{\text{Rad}}{\pi} \quad \text{Rad} = \frac{27\pi}{110} = \frac{3\pi}{20} \checkmark$$

$$\frac{125}{110} = \frac{\text{Rad}}{\pi} \quad \text{Rad} = \frac{125\pi}{110} = \frac{25\pi}{22} \checkmark$$

$$\frac{5\pi}{12} = \frac{2}{110} \quad \frac{5\pi}{12} = \frac{2\pi}{110} = \frac{1}{55} \checkmark$$

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$$10a + 22,5a + 12,5a = 110$$

$$45a = 110$$

$$a = \frac{110}{45} \checkmark$$

$$\frac{9\pi}{1} = \frac{22,5a}{110} \checkmark$$

$$\frac{125a}{9} = \frac{2}{110}$$

$$\frac{125a}{9} = \frac{2}{110} \quad \frac{125a}{9} = \frac{2}{110}$$

$$\frac{1}{1} \times \frac{\sqrt{3}}{2} - \frac{\sqrt{3}}{2} \times \frac{1}{1} - 1 + 2 = \frac{\sqrt{3}}{2} - \frac{\sqrt{3}}{2} - 1 + 2 = 1 \checkmark$$

$$\frac{\frac{1}{3} + 1 + 3}{\sqrt{3} - \frac{1}{\sqrt{3}}} = \frac{\frac{4}{3}}{\frac{3\sqrt{3} - 1}{\sqrt{3}}} = \frac{4}{3\sqrt{3} - 1} = \frac{12}{12\sqrt{3} - 3} \checkmark$$

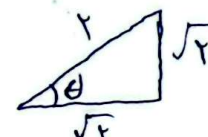
$$-\frac{1}{2} \times \frac{1}{2} + \frac{\sqrt{3}}{2} \times \frac{\sqrt{3}}{2} = \sin^2 \theta$$

$$-\frac{1}{4} + \frac{3}{4} = \sin^2 \theta$$

$$\frac{2}{4} = \sin^2 \theta$$

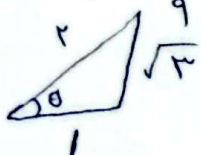
$$\frac{1}{2} = \sin^2 \theta$$

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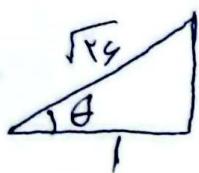
$$\tan \theta = \frac{1}{1} = 1 \checkmark$$

$$\frac{\frac{1\sqrt{3}}{3} \left(1 - \frac{3}{9}\right)}{\left(1 - \frac{3}{9}\right)^2} = \frac{\frac{1\sqrt{3}}{3} \left(\frac{6}{9}\right)}{\frac{4}{9} \times \frac{6}{9}} = \frac{1\sqrt{3}}{3} = \frac{1\sqrt{3}}{3} = \sqrt{3}$$



$$\theta = 60^\circ$$

$$\frac{60}{110} = \frac{\text{Rad}}{\pi} = \frac{60\pi}{110} = \frac{\pi}{11} \checkmark$$



$$\sin \theta = \frac{1}{\sqrt{2}}$$

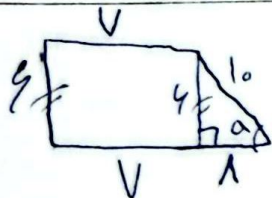
$$\cos \theta = \frac{1}{\sqrt{2}}$$

$$\sin = \frac{\text{مقابل}}{\text{مقدار}}$$

$$\cos = \frac{\text{جوار}}{\text{مقدار}}$$

$$\frac{15}{\sqrt{24}} - \frac{1}{\sqrt{24}} = \frac{14}{\sqrt{24}} = \frac{14}{\frac{1}{\sqrt{24}}} = 14 \checkmark$$

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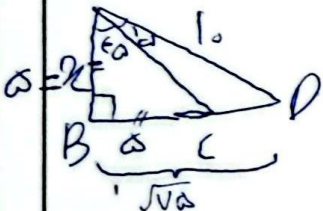


$$V + 10 + 1 + V + 9 = 38 \checkmark$$

$$\sin = \frac{\text{مقابل}}{\text{مقدار}}$$

$$4^2 + 1^2 = 10^2$$

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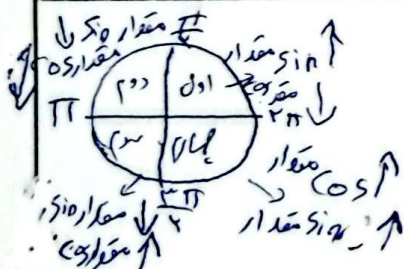


$$\cos \theta = \frac{1}{2} = \frac{2}{10} \quad \kappa = 2$$

$$\cos = \frac{\text{جوار}}{\text{مقدار}}$$

$$R = \sqrt{a} - a = a\sqrt{2} - a = a(\sqrt{2} - 1) \checkmark$$

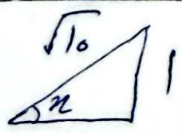
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الف) $\frac{3\pi}{2} > \theta > \pi$ یا $\theta > \pi$ یا $\theta > \frac{3\pi}{2}$
 $\sin \theta < 0$ $\cos \theta < 0$
 $\sin \theta > 0$ $\cos \theta > 0$
 $\sin \theta < 0$ $\cos \theta > 0$
 $\sin \theta > 0$ $\cos \theta < 0$

sin = +
cos = -
sin > 0
cos > 0
sin < 0
cos < 0

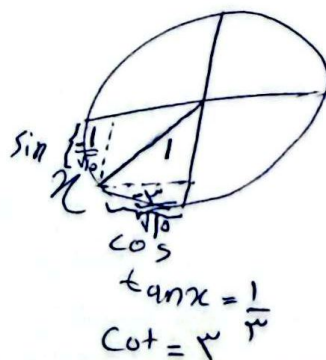
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$$\sin \theta = \frac{1}{\sqrt{10}}$$

$$\sin = \frac{\text{مقابل}}{\text{مقدار}}$$

$$\cos = \frac{\text{جوار}}{\text{مقدار}}$$



$$\frac{1}{\sin \theta} = 1 + \cot^2 \theta$$

$$\frac{1}{\sin^2 \theta} = 1 + \cot^2 \theta = 10$$

$$\sin^2 = \frac{1}{10}$$

$$\sin \theta = \pm \frac{1}{\sqrt{10}} \leftarrow -\frac{1}{\sqrt{10}} \checkmark$$

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