

19, 5

$$\frac{Rad}{\pi} = \frac{D}{1\pi} = \frac{G}{2\pi}$$

$$\frac{8\pi}{12\pi} = \frac{D}{1\pi} \Rightarrow D = 8 \checkmark$$

(2)

$$Rad = \frac{3\pi}{4} \leftarrow \frac{2\sqrt{3}\pi}{1\pi} \leftarrow \frac{Rad}{\pi} = \frac{2\sqrt{3}}{1\pi}$$

$$\frac{8\pi}{12\pi} = \frac{D}{1\pi} \Rightarrow D = 8 \checkmark$$

(3)

$$Rad = \frac{2\sqrt{3}\pi}{34} = \frac{2\sqrt{3}\pi}{34} \leftarrow \frac{Rad}{\pi} = \frac{2\sqrt{3}}{1\pi}$$

$$\frac{a}{\pi} = \frac{D}{1\pi} \Rightarrow D = \frac{1\pi \cdot a}{\pi} = 22,8a \checkmark$$

$$1 \cdot a + 22,8a + 1,8a = 1\pi$$

$$\frac{1,8a}{\frac{2\pi}{1}} = \frac{D}{1\pi} \Rightarrow \frac{1,8a}{\frac{2\pi}{1}} = \frac{D}{1\pi} \Rightarrow D \Rightarrow 1,8a \checkmark$$

$$a = 4^\circ \checkmark$$

سوال (2)

(2)

$$\left(\frac{1}{\sqrt{3}}\right)^2 + 1 + (\sqrt{3})^2 \Rightarrow \frac{1}{3} + 1 + 3 = 1 + 2 \Rightarrow 1 \checkmark$$

سوال (3)

(2)

$$\frac{\left(\frac{1}{\sqrt{3}}\right)^2 + 1 + (\sqrt{3})^2}{\sqrt{3} - \frac{1}{\sqrt{3}}} \Rightarrow \frac{\frac{1}{3} + 1 + 3}{\sqrt{3} - \frac{1}{\sqrt{3}}} = \frac{\frac{13}{3}}{\frac{2\sqrt{3}}{3}} = \frac{13}{2\sqrt{3}} \checkmark$$

$$-\frac{1}{\sqrt{3}} \times \frac{1}{\sqrt{3}} + \frac{\sqrt{3}}{\sqrt{3}} \times \frac{\sqrt{3}}{\sqrt{3}} = \sin^2 \theta \Rightarrow \sin^2 \theta = \frac{1}{3} = \frac{\sqrt{3}}{3} \Rightarrow \theta = 45^\circ \checkmark$$

سوال (4)

(1, 7, 5)

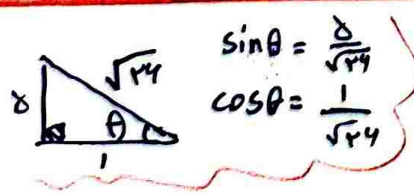
$$\tan \theta = \frac{1}{\sqrt{3}} \checkmark$$

سوال لغت هاد است!

$$\frac{\frac{1}{\sqrt{3}}}{\frac{1}{\sqrt{3}} \times \frac{1}{\sqrt{3}}} = \frac{1 \times \sqrt{3}}{1 \times 1} = \frac{\sqrt{3}}{1} = \frac{\sqrt{3}}{1} \left\{ \begin{array}{l} 1 - \tan^2 30^\circ = \frac{1}{\cos^2 30^\circ} = 4 \\ 1 - \cot^2 45^\circ = \frac{1}{\sin^2 45^\circ} \Rightarrow \frac{4}{1} \end{array} \right. \left\{ \begin{array}{l} \tan 30^\circ = \frac{\sqrt{3}}{3} \\ \cot 45^\circ = \frac{\sqrt{3}}{3} \end{array} \right. \text{سوال (5) } \checkmark$$

نوعه

نوعه



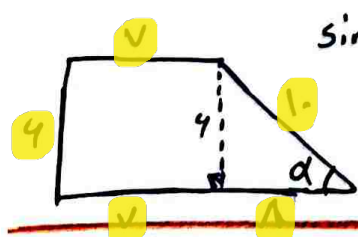
$$\sin \theta = \frac{8}{\sqrt{24}}$$

$$\cos \theta = \frac{1}{\sqrt{24}}$$

$$\frac{\frac{8}{\sqrt{24}}}{\frac{1}{\sqrt{24}}} = \frac{8}{1} = 8 \checkmark$$

سوال (6)

(2)



$$\sin \alpha = \frac{4}{5}$$

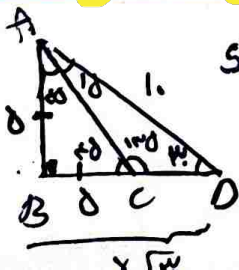
$$\frac{4}{5} = \frac{4}{5} \Rightarrow \text{مقدار}$$

$$4 + 1^2 + 1 + 1 = 5 \checkmark$$

سوال (7)

(1, 7, 5)

دقت!

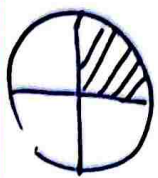


$$\sin 30^\circ = \frac{1}{2} \Rightarrow AB = 8 \quad \cos 30^\circ = \frac{\sqrt{3}}{2} \Rightarrow \frac{a}{1} = \frac{\sqrt{3}}{2} \Rightarrow a = \frac{\sqrt{3}}{2} \Rightarrow a = 8\sqrt{3}$$

$$CD = 8\sqrt{3} - 8 \Rightarrow 8(\sqrt{3} - 1) = 3,8 \checkmark$$

سوال (8)

(2)



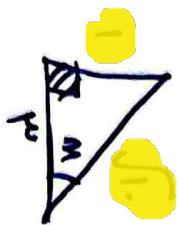
← (ب) ناصب دوم



سؤال ١٩ (٢)
 (ا) ناصب سوم



$$\frac{1}{\sqrt{10}}$$



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

ناصب سوم

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

سؤال ١٥ (١)

ناصب سوم Sin منفي اسه

$\sin \alpha \rightarrow \frac{\text{منبع مقابل}}{\text{وتر}}$

$$\tan \theta = \frac{1\left(\frac{\sqrt{3}}{2}\right)\left(1 - \left(\frac{\sqrt{3}}{2}\right)^2\right)}{\left(1 - \left(\frac{\sqrt{3}}{2}\right)^2\right)^2} = \sqrt{3} \rightarrow \theta = \frac{\pi}{3}$$

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