

پاسخ نامه! مطالعه کن! ۱۱/۵

مهری ریاضی دوازدهم خنجر سینه

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

$\hat{B} = \hat{C} = 40^\circ \rightarrow \hat{A} = 100^\circ$

$$\frac{r_0 \sqrt{4}}{r} = \frac{r_0}{\sin \alpha}$$

1

$$\sin \alpha = \frac{\sin(180 - \alpha)}{\frac{\sqrt{4}}{r}}$$

$$\frac{a}{\sin A} = \frac{b}{\sin B} \rightarrow \frac{r}{\sqrt{4}} = \frac{r_0 \sqrt{4}}{r} \rightarrow \sin A = \frac{r_0}{r}$$

$$\hat{B} = 0^\circ \rightarrow \hat{C} = 180^\circ$$

$$180 - (40 + 40) = 100$$

2

$$\frac{r \sqrt{r}}{\sin 40} = \frac{y}{\sin 40}$$

$$\frac{r \sqrt{r}}{\frac{\sqrt{r}}{r}} = \frac{y}{\frac{\sqrt{r}}{r}}$$

$$y = r \sqrt{r}$$

$$\frac{\sqrt{r}}{r} \times r \sqrt{r} = r \sin$$

✓

$$\frac{b}{\sin B} = \frac{c}{\sin C} = k \sin c = \frac{c \sin B}{b}$$

100

$$\frac{\sin c}{\sin B} = \frac{c}{b}$$

$$\frac{(b^2 - r)(c)(\sin B)}{b} = \frac{(b^2 - r) \sin B}{b}$$

$$\sin B = \frac{b}{b^2 - r}$$

$$\frac{b^2 - r}{1} \times \frac{c}{b} = c \xrightarrow{c \neq 0}$$

$$b = 1 \times$$

$$b^2 - b - r = 0 \rightarrow b = 2 \checkmark$$

$$(13)^2 = (11)^2 + (10)^2 - 2(11)(10) \cos B$$

3

$$149 = 121 + 100 - 220 \cos B$$

100

$$28 \cos B = 44 \cos B$$

$$\cos B = \frac{1}{10}$$

$$\sin B = \frac{3}{10}$$

$$a^2 = b^2 + c^2 - 2bc \cos A$$

$$a^2 = 14 + (1(1+\sqrt{3}))^2 - 14(1+\sqrt{3}) \cos 40^\circ$$

10

$$a^2 = 14 - 1\sqrt{3} \quad a = \sqrt{14 - 1\sqrt{3}}$$

$$ABC \text{ Law of Cosines} \rightarrow 1^2 + 1^2 - 2(1)(1)(\cos 90^\circ) = 2 \rightarrow 2 \cos 90^\circ = 1 \rightarrow \cos 90^\circ = \frac{1}{2}$$

$$ADE \text{ Law of Cosines} \rightarrow 4^2 + 1^2 - 2(4)(1)(\frac{1}{2}) = 16 + 1 - 4 = 13$$

$$DE^2 = 13 \rightarrow DE = \sqrt{13}$$

$$OB^2 = 9^2 + 10^2 - 2(9)(10) \cos 40^\circ = 19 \quad BC = 10$$

$$S_{ABC} = \frac{1}{2} \times 1 \times 1 \times \sin 90^\circ = 1 \times \frac{\sqrt{3}}{2} = \frac{\sqrt{3}}{2}$$

$$b^2 + c^2 + 2bc \cos A = (b^2 + c^2 - 2bc \cos \theta) + 2bc \cos \theta$$

$$a^2 = b^2 + c^2 - 2bc \cos \theta$$

$$a^2 = b^2 + c^2 - 2bc \cos A \rightarrow b^2 + c^2 + 2bc \cos A = b^2 + c^2 - 2bc \cos A + 2bc \cos A$$

$$\frac{2bc \cos A}{2A+1}$$

$$\frac{2bc \cos A}{2A+1} = 1$$

$$a^2 + b^2 - c^2 = a^2 + a^2 b - ca^2$$

$$b^2 - a^2 b + ca^2 - c^2 = b^2 - c^2 - a^2(b-c)$$

$$-a^2(b-c)$$

$$(b-c)(b^2 + c^2 + bc - a^2)$$

$$(b-c)(bc + 2bc \cos A)$$

$$b^2 + c^2 - 2bc$$

$$\frac{(1-\cos \theta)(1+\cos \theta)(\sin 90^\circ)}{1} = 1$$

① = 10

$$\mu - \mu \cos^2 \theta - \cos \theta + 9 \cos \theta = 1$$

$$- \mu \cos^2 \theta + 1 \cos \theta + \mu = 1$$

$$\mu \cos^2 \theta - 1 \cos \theta + \delta =$$

$$\cos \theta - 1 \cos \theta + 1 \delta =$$

$$\left(\cos \theta - \frac{\delta}{\mu} \right) \left(\cos \theta - \frac{\mu}{\mu} \right) =$$

$$\cos \theta \leq 1$$

$$\cos \theta \leq \frac{\delta}{\mu} \propto \sigma \sigma \varepsilon$$

AB = 2 , AC = 4 $\rightarrow$ قسمة بـ 2 $\rightarrow$ $a^2 = 4^2 + 2^2 - 2(4)(2)\left(\sqrt{\frac{4}{2}}\right)$

$a^2 = 20 - 16\sqrt{2}$

سوال 4

$$a^2 + b^2 - c^2 = a^2 + a^2 b - a^2 c$$

$$\cancel{b^2} - \cancel{c^2} = a^2 (\cancel{b} - \cancel{c})$$

$$b^2 + c^2 + bc = a^2 \rightarrow \cancel{b^2} + \cancel{c^2} - bc = \cancel{b^2} + \cancel{c^2} - 2bc \text{ CSA}$$

$$C \cdot \hat{A} = \frac{-1}{2} \rightarrow \hat{A} = 120^\circ$$

سوال 5

$$a^2 = (2 + 4\sqrt{2}) + (2) - 2 \times 2 \times \frac{1}{2} (2 + 4\sqrt{2})$$

$$a^2 = 2 + 4 + 4\sqrt{2} + 4 - 1 - 4\sqrt{2} \rightarrow a^2 = 24 \rightarrow a = 2\sqrt{6}$$

$$\frac{2\sqrt{6}}{\sin 45^\circ} = \frac{4}{\sin B} \rightarrow \sin B = \frac{2}{\sqrt{6}} \rightarrow \hat{B} = 30^\circ, \hat{C} = 90^\circ$$