

دوسرے مسئلے

یاد رکھو

۲۰

①

الف) $\tan \frac{11\pi}{4} + \sin \frac{15\pi}{4} \cos \frac{13\pi}{4}$

$$\tan \left(2\pi + \frac{3\pi}{4} \right) + \sin \left(3\pi + \frac{3\pi}{4} \right) \cos \left(3\pi + \frac{\pi}{4} \right)$$

$$\tan 135^\circ + \sin 135^\circ \times \cos 45^\circ = -1 + \frac{1}{\sqrt{2}} \times \frac{1}{\sqrt{2}} = -1 + \frac{1}{2} = -\frac{1}{2}$$

②

ب) $\tan \frac{14\pi}{9} \sin \frac{11\pi}{3} + \cos \frac{10\pi}{3}$

$$\tan \left(2\pi + \frac{5\pi}{9} \right) \sin \left(3\pi + \frac{2\pi}{3} \right) + \cos \left(3\pi + \frac{2\pi}{3} \right)$$

$$-\frac{\sqrt{3}}{3} \times \frac{\sqrt{3}}{2} + \frac{1}{2} = 0$$

$$\frac{\cos}{\sin} = 4$$

$$4 \sin = \cos$$

$$\frac{4 \cos \sin - \sin \sin}{\cos \sin + \sin \sin}$$

$$\frac{12 \sin - \sin}{5 \sin} = \frac{11 \sin}{5 \sin} = \frac{11}{5}$$

$$\cot x = 4 \text{ اور } ③$$

②

۱) $\sin \alpha = 4 \cos \alpha$ انتہائی لمبا دایہ سوم است

$$\sin^2 + \cos^2 = 1$$

$$\sin^2 = (4 \cos)^2$$

$$\cos^2 + 16 \cos^2 = 1$$

$$17 \cos^2 = 1$$

$$\cos = \pm \frac{1}{\sqrt{17}}$$

②

ج) ربع سوم میں $-\frac{\sqrt{5}}{5} = -\frac{1}{\sqrt{5}}$

انتہائی لمبا دایہ دوم

$$\cos \left(2\pi + \frac{3\pi}{4} + \alpha \right)$$

$$\cos \left(\frac{11\pi}{4} + \alpha \right)$$

$$\sin \alpha = \frac{\sqrt{2}}{10}$$

④ الف)

$$\cos^2 = 1 - \sin^2$$

$$\cos = \frac{\sin}{1} = \pm \frac{\sqrt{2}}{1}$$

ربع دوم میں $-\frac{\sqrt{2}}{1}$

$$\cos \left(\frac{3\pi}{4} + \alpha \right) = \cos \frac{3\pi}{4} \cos \alpha - \sin \frac{3\pi}{4} \sin \alpha$$

$$\frac{1}{2} + \frac{1}{2} = \frac{2}{2} = 1$$

قسم B

یا رسا محوری

$$\sin\left(\frac{13\pi}{4} + \alpha\right)$$

$$\sin^2 = 1 - \frac{4}{\delta} = \frac{1}{\delta}$$

$$\tan \alpha = \frac{1}{\sqrt{3}}$$

$$\tan^2 + 1 = \frac{1}{\cos^2}$$

$$\frac{\delta}{4} = \frac{1}{\cos^2}$$

$$\cos^2 = \frac{4}{\delta} = \pm \frac{\sqrt{3}}{1}$$

چون اولی پس مثبت است.

$$\frac{\sqrt{3}}{1} = \sin$$

ادل است.

$$\left(\sin \frac{\delta}{4} + \alpha\right) = -\frac{\sqrt{3}}{1} = \left(\sin \alpha + \cos \alpha\right)$$

$$\frac{\sqrt{3}}{\delta} =$$

$$\tan^2 = ?$$

$$\cos^2 = 1 - \sin^2 = \frac{1}{4}$$

$$\tan^2 = \frac{\sin^2}{\cos^2} = \frac{1/4}{1/4} = 1$$

$$r \sin^2 + \cos^2 = \frac{r}{4}$$

$$\sin^2 + \cos^2 + \sin^2 = \frac{r}{4}$$

$$1 + \sin^2 = \frac{r}{4}$$

$$\sin^2 = \frac{1}{4}$$

max
min

$$S = r, \delta$$

$$(a, q, \sqrt{r})$$

$$\sqrt{r} \times q \times \frac{1}{r} \times \sin \alpha = r, \delta$$

$$r \times \sqrt{r} \times \sin = r, \delta$$

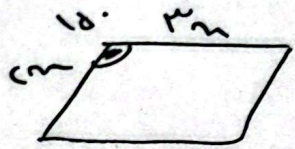
$$\sin \alpha = \frac{\sqrt{r}}{r}$$

$$\sin = \frac{r \delta^{1/2}}{r \times \sqrt{r}} = \frac{r}{r \sqrt{r}}$$

$$\frac{\max}{\min} = \frac{12}{9} = 2$$

2

« دھیرا سیر » یار سا کھری
 10. 15. 18. 20. 22. 24. 26. 28. 30. 32. 34. 36. 38. 40. 42. 44. 46. 48. 50. 52. 54. 56. 58. 60. 62. 64. 66. 68. 70. 72. 74. 76. 78. 80. 82. 84. 86. 88. 90. 92. 94. 96. 98. 100.
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محیط متوازی الاضلاع

$$S = 10 \times 15 \times \frac{1}{2} \times \sin 10^\circ$$

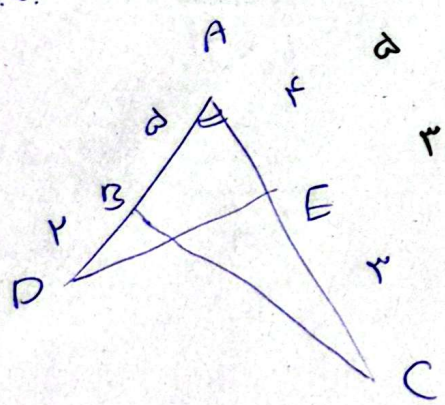
$$\frac{9\sqrt{2}}{2} = \frac{15}{2} \times \sin 10^\circ$$

$$9\sqrt{2} = 15 \times \sin 10^\circ$$

$$\sin 10^\circ = \frac{9\sqrt{2}}{15}$$

$$9\sqrt{2} + 9\sqrt{2} = (15\sqrt{2}) \times 2 = 30\sqrt{2}$$

اقلات ساحت $\triangle ABC$ و $\triangle ADE$ 11 و 12 است $\tan A$



$$d \times v \times \sin A \times \frac{1}{2} - v \times r \times \frac{1}{2} \times \sin A$$

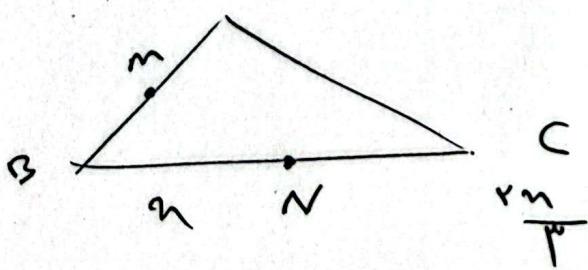
$$r \sin \alpha = 11 \times d$$

$$\sin \alpha = \frac{1}{r}$$

$$\frac{1}{\sqrt{3}} = \tan \hat{A}$$

$$C.S = \frac{\sqrt{3}}{2}$$

1. $\overline{BN} = \overline{NC}$ $\triangle ABC$ د مثلث BC و AB د N, M د مساحت مثلث ABC د مساحت مثلث BMN نسبت 11 و 12 است $\frac{BM}{AM}$



$$r \times \frac{1}{2} \times BM \times BN \times \sin B$$

$$= \frac{1}{2} \times AB \times BC \times \sin B$$

$$r \cdot BM = d \cdot AM$$

$$BM = \frac{d}{r} \cdot AM$$

$$\frac{\frac{d}{r} \cdot AM}{AM} = \frac{d}{r}$$

$$r \cdot BM = (BM + AM) \cdot \frac{d}{r}$$

$$\frac{| \sin \alpha |}{C \cdot S \alpha} = \frac{1}{C \cdot \tan \alpha}$$

$$\frac{1}{\sqrt{C \cdot S \alpha}} - \tan \alpha = \frac{1 + \sin \alpha}{|C \cdot S \alpha|}$$

انتهای کما α در تمام ناحیه قرار دارد

~~در تمام~~

$$\frac{1}{\sqrt{C \cdot S \alpha}} = \frac{1}{|C \cdot S \alpha|} - \tan \alpha = \frac{1 + \sin \alpha}{|C \cdot S \alpha|}$$

$$-\tan \alpha = \frac{\sin \alpha}{|C \cdot S \alpha|}$$

$$\frac{| \sin \alpha |}{C \cdot S \alpha} = \frac{-\sin \alpha}{C \cdot S \alpha}$$

$$C \cdot S \alpha < \frac{1}{|C \cdot S \alpha|} + \frac{\sin \alpha}{|C \cdot S \alpha|}$$

$\sin \alpha < 0$ } پس در ناحیه سوم

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