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نفسی، ریسی
سین ۱۹
هم (۱۹)

$$\frac{\omega}{P} = 17^\circ$$



$$1' = 9^\circ \quad 3: \omega K' \quad (1)$$

$$9^\circ + (5 \times 17^\circ) + 27 = 153^\circ$$

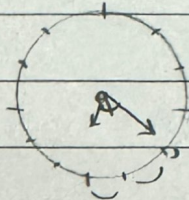
(الف)

$$|diam - 17 \cdot H| = |51 \omega \times \omega K - 9| \quad 27^\circ \quad (ب)$$

$$340 - 207 = 133^\circ$$

$$\frac{11}{P} = 9^\circ$$

$$9: 11' \quad (2)$$



$$12^\circ$$

$$(12) + 2 \times 17^\circ + 9 = 51^\circ$$

$$12 + 40 + 9 = 61 + 9 = 70^\circ$$

$$|diam - 17 \cdot H| = |51 \omega \times 11 - 3 \times 4| = |99 - 12| \quad (ج)$$

$$= 87^\circ$$

(3)

$$\frac{\pi}{4} \times 9 = \frac{17 \pi}{P} \quad \times \frac{P}{P} = \frac{17 \pi}{P} = \frac{17 \pi}{P} \quad (د)$$

$$17 + \alpha R = 4 + \frac{\pi}{4} \times 17 = 4 + \frac{\pi}{4} \quad = \frac{17 \pi}{4} \quad (هـ)$$

(4)

$$S_A = \frac{1}{P} \times AB \times AC \times \sin 4 = 10\sqrt{3} \quad (و)$$

$$\frac{1}{P} \times \omega \times A \times \frac{\sqrt{3}}{P} = 10\sqrt{3}$$

$$BC = \sqrt{(AB)^2 + (AC)^2 - 2(AB)(AC)(\cos 4)} = \sqrt{25 + 49 - 70} = \sqrt{4} = 2 \quad (ز)$$

$$\omega + 1 + 1 = 2 \quad (ح)$$

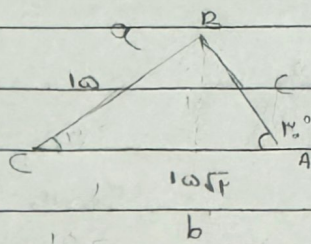
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$$\hat{B} + \hat{C} = 100^\circ$$

(a)

$$\frac{\sin \hat{A}}{a} = \frac{\sin \hat{B}}{b} = \frac{\sin \hat{C}}{c}$$

$$\frac{1}{\sqrt{2}} = \frac{\sin \hat{B}}{10\sqrt{2}}$$

B'

$$\hat{B} = \frac{\pi}{4}$$

$$\sin \hat{B} = \frac{\sqrt{2}}{2} \Rightarrow \hat{B} = 45^\circ$$

$$\hat{C} \Rightarrow \frac{100}{100} = \frac{\text{Rad}}{\pi} \Rightarrow \hat{C} = \frac{\pi}{100}$$

$$\hat{C} = 100^\circ - \hat{B} = 55^\circ$$

$$\tan(\pi - \alpha) + r \tan(\pi + \alpha)$$

$$= -\tan \alpha + r \tan \alpha$$

$$r \tan \alpha$$

$$= -1$$

(c)

$$\tan(\pi - \alpha) - \tan(\pi + \alpha)$$

$$= -\tan \alpha - \tan \alpha$$

$$= -r \tan \alpha$$

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

$$r \tan(45^\circ) + \tan(10^\circ)$$

$$r \tan(145^\circ) - \tan(10^\circ)$$

(v)

$$\frac{D}{10} = \frac{\text{Rad}}{\pi}$$

$$\frac{\pi}{10} = \frac{D}{10}$$

$$\frac{1}{10} = \frac{D}{10}$$

$$= D = \frac{10}{10} = 10^\circ$$

$$r \tan\left(\frac{\pi}{4} - 10^\circ\right) + \tan\left(\frac{\pi}{4} + 10^\circ\right)$$

$$r \tan(\pi - 10^\circ) - \tan\left(\frac{\pi}{4} - 10^\circ\right)$$

$$r \cot 10^\circ + \cot 10^\circ$$

$$= \cot 10^\circ$$

$$- r \tan(10^\circ) + \cot(10^\circ)$$

$$= -r \tan \alpha + \cot \alpha$$

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

$$\sin m + \cos m$$

$$\sin m - \cos m$$

$$r \sin^2 m + \cos^2 m$$

(A)

$$\sin m - \cos m$$

$$\sin m + \cos m$$

$$\sin^2 m - \cos^2 m$$

$$r(\sin^2 m + \cos^2 m) = 1$$

$$r = 1 - 4 \cos^2 m$$

$$\sin^2 m - \cos^2 m = 1 - 4 \cos^2 m$$

$$4 \cos^2 m = 1$$

$$1 - \cos^2 m$$

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

$$\tan^2 m = \frac{\sin^2 m}{\cos^2 m} = \frac{\frac{3}{4}}{\frac{1}{4}} = 3$$

$$\sin^2 m = \frac{3}{4}$$

Ruzzle

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$$\frac{\sin^p m - p \cos^p m + 1}{\sin^p m + p \cos^p m - 1} = \frac{1 - \cos^p m - p \cos^p m + 1}{\cos^p m}$$

2

$$\sin^p m + p \cos^p m - 1$$

$$\cos^p m$$

(9)

3

$$1 + \cos^p m$$

4

$$\frac{-p \cos^p m + p}{\cos^p m} = k \Rightarrow -p \cos^p m + p = k \cos^p m$$

5

$$\cos^p m$$

$$p \cos^p m = p \Rightarrow \cos^p m = \frac{p}{p}$$

6

$$\frac{1}{\cos^p m} = \tan^p m + 1 \Rightarrow \frac{p}{p} - 1 = \tan^p m$$

7

$$\tan^p m = \frac{p}{p} = 1, \omega$$

8

9

$$\cos^p \alpha = \frac{\cos^p \alpha + 1}{p}$$

10

(10)

11

$$\cos(4\pi/\omega) =$$

$$\cos^p 4\pi/\omega = \frac{1 + \cos^p \omega}{p} = \frac{1 + \frac{p}{p}}{p} = \frac{p + p}{p} = \frac{2p}{p} = 2$$

12

$$\cos^p \omega = \frac{p}{p}$$

$$\frac{p + \sqrt{p}}{p}$$

$$\Rightarrow \cos^p 4\pi/\omega = \frac{\sqrt{p + \sqrt{p}}}{p}$$

13

14

15

$$\sin^p \alpha = \frac{1 - \sin^p \alpha}{p}$$

16

$$\sin(4\pi/\omega) =$$

17

18

$$\sin^p 4\pi/\omega = \frac{1 - \sin^p \omega}{p} = \frac{1 + \frac{p}{p}}{p} = \frac{p + p}{p} = \frac{2p}{p} = 2$$

19

20

$$\sin(4\pi/\omega) = \frac{\sqrt{p + \sqrt{p}}}{p}$$

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