

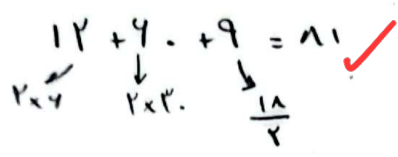
(الف) $30 - \frac{54 \times 17}{x} = 3$ $(3 \times 30) + 3 + (4 \times 9)$  (ب)

$\alpha = 4(30) + 17 + 6 = 154$

$\alpha = \left| \frac{11}{2} \times 54 - 2(17) \right| = 29$

$\alpha = \left| \frac{11}{2} M - 2H \right|$ $(3 \times 30) - (54 \times 5/10) = 29$

باید زاویه کمتر از ۱۸۰ بیان کرد. $\alpha = 360 - 29 = 331$

(الف) $12 + 40 + 9 = 61$  (ب)

$(4 \times 30) - (54 \times 18) = 18$

(الف) $S \cdot AB = \frac{\pi}{r} R^2 \Rightarrow \frac{\pi}{R_f} \times R_f^2 = \frac{\pi R}{f}$

$P_{OAB} = r_v + \alpha r = r(30) + \frac{\pi}{4}(30) = 4 + \frac{\pi}{4}$

(ب) $AB = aR = \frac{\pi}{4} \times 1 \times 30 = \frac{\pi}{4}$

$\frac{1}{r} \times a \times AB \times \sin 40^\circ = \frac{1}{f} \times a \times R \times \frac{\sqrt{r}}{r} = \frac{R \cdot \sqrt{r}}{f \cdot r} = 1 \cdot \sqrt{3}$

(ب) $BC^2 = AB^2 + AC^2 - 2AB \cdot AC \cos 40^\circ$

$\rightarrow BC^2 = 25 + 49 - 2 \times 5 \times 7 \times \frac{1}{2} = 14 \rightarrow BC = \sqrt{14}$

$CB = \frac{14}{r} \Rightarrow P = \frac{14}{r} + 13$ $P_{ABC} = 5 + 1 + \sqrt{14} = 6$

$\frac{1}{\sin A} = \frac{15\sqrt{2}}{\sin B} \Rightarrow 30 = \frac{15\sqrt{2}}{\sin B} \Rightarrow \hat{B} = \frac{\pi}{4}$

$\hat{C} = \frac{\sqrt{2}}{11}$

$$\frac{\tan x (\pi - x) + r \tan(a + \pi)}{r \tan(\pi - a) - \tan(r\pi + x)} = \frac{r \tan x}{-r \tan x} = -1 \quad \checkmark$$

(y)

$$\frac{r \tan\left(\frac{\pi}{r} - a\right) + \tan\left(\frac{\pi}{r} + a\right)}{r \tan(\pi - a) - \tan\left(\frac{r}{r}\pi - a\right)} = \frac{r \cdot \tan a}{-\tan a - \cot a} = \frac{1}{-\tan^2 a - 1} \quad \textcircled{c}$$

$$\frac{\pi}{r} \times \frac{1a}{\pi} = 1a$$

$$A = \frac{r \tan\left(\frac{\pi}{r} - 1a\right) + \tan\left(\frac{\pi}{r} + 1a\right)}{r \tan(\pi - 1a) - \tan\left(\frac{\pi}{r} - 1a\right)} = \frac{r \cot 1a - \cot 1a}{-r \tan 1a - \cot 1a} = y$$

$$\frac{\cot 1a}{-r \tan 1a - \cot 1a} = \frac{\frac{1}{a}}{-\frac{1}{a} - \frac{1}{a}} = \frac{-1}{\frac{1}{a} + 1}$$

$$\frac{\sin^r + \cos^r + r \cos \sin + \sin^r + \cos^r - r \cos \sin x}{\sin^r - \cos^r} = > r = \frac{r}{1 - \cos^2 x}$$

$$\cos^r = \frac{1}{4} \Rightarrow \sin^r = \frac{3}{4} \quad \tan = \frac{\frac{3}{4}}{\frac{1}{4}} = 3 \quad \checkmark \quad \textcircled{y}$$

$$\frac{\sin^r - r \cos^r + \sin^r + \cos^r}{\sin^r + r \cos^r - r \sin - \cos^r} = \frac{r \sin^r - \cos^r}{\cos^r} = r$$

$$\cos^r = r \sin^r \Rightarrow \tan^r x = \frac{1}{r} \quad \checkmark \quad \textcircled{y}$$

$$\cos^r(r\pi, a) = \frac{1 + \cos^r a}{r} = r_{1,a} = \frac{\sqrt{r} + \sqrt{r}}{r} \quad \checkmark$$

$$\Rightarrow \sin^r(4\pi, a) = \frac{1 - \cos^r a}{r} = r_{4,a} = \frac{\sqrt{r} - \sqrt{r}}{r} \quad \checkmark \quad \textcircled{y}$$

