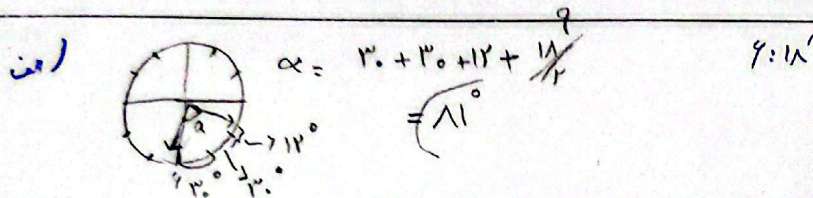
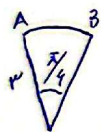


ب) $|5.5 \times m - 3.0 \times h| = |(5.5 \times 54) - 3.0(153)| = 153$

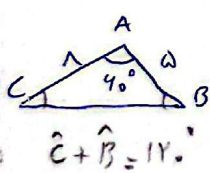


ب) $|5.5 \times m - 3.0 \times h| = |5.5 \times 11 - 3.0(9)| = 11$



الف) $s = R \times \frac{\theta}{180} \times \pi = 7 \times \frac{1}{180} \times \pi \times r^2 \rightarrow \frac{7 \times \pi \times r^2}{180} = \frac{3 \pi}{4}$

ب) $P = P_{AB} + 4 \text{ cm} = \frac{3 \times \pi \times r^2}{180} + 4 = (4 + \frac{\pi}{4})$



الف) $s_{ABC} = 1 \times 1 \times \frac{1}{2} \times \sin 40 = \frac{1}{2} \times \frac{1}{2} \times \frac{\sqrt{3}}{2} = 1.0\sqrt{3}$

ب) $P_{ABC} = 1 + 1 + 1 = 3$

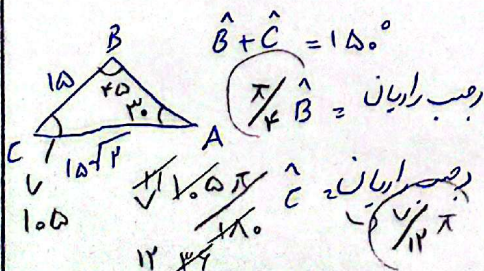
$1 + CB \times \frac{1}{2} = 1 \rightarrow CB \times \frac{1}{2} = 1 \rightarrow CB = 2$

$(1 \times \frac{1}{2}) + CB \cos \hat{C} = 1$

$CB \cos \hat{C} = \frac{1}{2}$ و $1 \cos \hat{C} + 1 \cos \hat{B} = CB$ $\rightarrow \frac{1}{2} + CB \cos \hat{B} = 2 \rightarrow CB \cos \hat{B} = \frac{3}{2}$

$1 \cos \hat{C} + 1 \cos \hat{B} = 2$ $\rightarrow \cos \hat{B} = \frac{1}{2}$

$\frac{1.0 \Delta}{1.1} = \frac{R_{\text{rad}}}{\pi}$



$\frac{1.0}{\sin 40} = \frac{1.0 \sqrt{2}}{\sin \hat{B}} \rightarrow \frac{1}{\sin 40} = \frac{1.0 \sqrt{2}}{\sin \hat{B}} \rightarrow \sin \hat{B} = \frac{1.0 \sqrt{2}}{1}$

$\hat{B} = 45^\circ$ و 135°

$$\frac{\tan(\pi - \alpha) + r \tan(\pi + \alpha)}{\tan(r\pi - \alpha) - \tan(r\pi + \alpha)} = \frac{-\tan \alpha + r \tan \alpha}{-\tan \alpha - \tan \alpha} = \frac{r \tan \alpha}{-2 \tan \alpha} = -\frac{r}{2}$$

5



$$\tan \frac{\pi}{11} = a$$

$$\beta = 15^\circ$$

$$A = \frac{r \tan \nu \Delta^\circ + \tan 1 \cdot \Delta^\circ}{r \tan \nu \Delta^\circ - \tan \nu \Delta^\circ} = \frac{r \tan \left(\frac{\pi}{\nu} + \beta \right) + \tan \left(\frac{\pi}{\nu} + \beta \right)}{r \tan \left(\frac{\pi}{\nu} + \beta \right) - \tan \left(\frac{\pi}{\nu} + \beta \right)} = \frac{\frac{r a - 1/a}{r \tan \beta - \cot \beta}}{\frac{-r \tan \beta - \tan \beta}{-r a}} = \frac{\frac{r a^2 - 1}{-a}}{\frac{-r a}{-1}}$$

$$= \left(\frac{r a^2 - 1}{-r a^2} \right) = \frac{-1}{r} + \frac{1}{r a^2}$$

$$\frac{\sin x + \cos x}{\sin x - \cos x} + \frac{\sin x - \cos x}{\sin x + \cos x} = r \rightarrow \frac{(\sin x + \cos x)^r}{\sin^r x - \cos^r x} + \frac{(\sin x - \cos x)^r}{\sin^r x - \cos^r x}$$

$$\tan^r m = \frac{\omega}{1} \times 1 = \omega$$

$$\frac{(r \sin \alpha + r \cos \alpha)^2}{\sin^2 \alpha - \cos^2 \alpha} + \frac{(\sin \alpha - \cos \alpha)^2}{\sin^2 \alpha - \cos^2 \alpha}$$

$$\frac{r(1 - \cancel{\cos^2 \alpha} + \cancel{\cos^2 \alpha})}{r \sin^2 \alpha + r \cos^2 \alpha} = r \rightarrow r - r \cos^2 \alpha = r$$

$$\frac{\sin^2 \alpha - \cos^2 \alpha}{1 - r \cos^2 \alpha} \quad 1 = r \cos^2 \alpha$$

$$\cos^2 \alpha = \frac{1}{r}$$

$$\sin^2 \alpha = \frac{r-1}{r}$$

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$$\frac{\sin^r n - r \cos^r n + 1}{\sin^r n + r \cos^r n - 1} = r \rightarrow \frac{1 - r \cos^r + 1}{r + \cos^r - 1} = \frac{r - r \cos^r}{\cos^r} \rightarrow \frac{2 \cos^r}{r - r \cos^r} \rightarrow \cos^r = \frac{r}{\sqrt{r^2 + 1}}$$

9

α_0
 ارف $\cos(2r\alpha) = -\cos^2\alpha = \cos^2\alpha - \sin^2\alpha \rightarrow \cos^2\alpha = \cos^2\alpha - \sin^2\alpha$
 $\frac{\sqrt{r}}{r} = r\cos^2\alpha - 1 \rightarrow r\cos^2\alpha = \frac{\sqrt{r}+r}{r}$
 $\cos\alpha = \sqrt{\frac{r+\sqrt{r}}{r}}$

$\sin(40^\circ) = \sin 40^\circ, \cos 40^\circ$
 زاویه‌های متمم $\sin$ و $\cos$ برابر است.