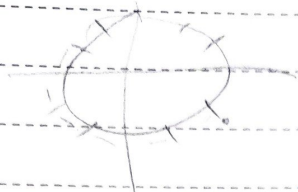
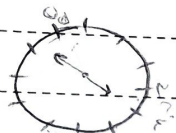


$$P: \omega r \rightarrow$$

$$\omega \times r_0 + P + r \times S = 1r \checkmark$$



رسم شکل:

$$a = |a, a M - r_0 H| \Rightarrow |a, a \times \omega r - r_0 \times P| = 1r \checkmark - 90 = 1r \checkmark$$

$$r_0 - 1r \checkmark = 1r \checkmark$$

$$|r_0 \times S - a, a \times 1r| = |1r_0 - 99| = 1r \checkmark$$

$$\alpha = \frac{R}{r} \quad r = P$$

$$S: \frac{1}{r} \times k \times \alpha = \frac{1}{r} \times 9 \times \frac{R}{r} = \frac{9R}{r} \rightarrow \frac{1rR}{r} S$$

$$P: \omega r + S \times r = 1r + k \times \alpha = 1r + 9 \times \frac{R}{r} = 1r + 12 = 1r \checkmark P$$

$$B + C = 100$$

$$B, C = 10 \quad AC = 10\sqrt{r} \quad A = 90^\circ$$

$$\frac{a}{\sin A} = \frac{b}{\sin B} \Rightarrow \frac{10}{\sin 90} = \frac{10\sqrt{r}}{\sin B} \Rightarrow B = 60^\circ, C = 100^\circ$$

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

$$\tan\left(\frac{R}{r} - \alpha\right) = \tan\left(\frac{R}{r} + \alpha\right)$$

$$\tan\left(\frac{R}{r} - \alpha\right) = \cot \alpha = \frac{1}{\tan \alpha}, \quad \tan\left(\frac{R}{r} + \alpha\right) = -\cot \alpha$$

$$\frac{1}{\tan \alpha} - \left(\frac{1}{\tan \alpha}\right) = \frac{r}{\tan \alpha} = 0$$

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

$$t + \frac{1}{t} = r \Rightarrow t = \frac{\sin + \cos}{\sin - \cos}$$

$$t^2 - rt + 1 = 0$$

$$\tan \alpha = y$$

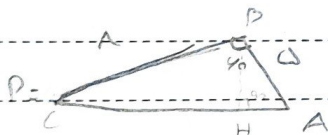
$$t = \frac{\sin + \cos}{\sin - \cos} = \frac{y+1}{y-1}$$

$$\Rightarrow \tan \alpha = y$$

$$\cos \pi \alpha = \cos \frac{\pi \alpha}{r} = \sqrt{\frac{1 + \cos \pi \alpha}{2}} = \sqrt{\frac{r + \sqrt{r}}{r}}$$

$$\sin \pi \alpha = \sin (90 - \pi \alpha) = \cos \pi \alpha = \sqrt{\frac{r + \sqrt{r}}{r}}$$

$$S = \frac{1}{r} \times \alpha \times r + \sin \alpha = \frac{1}{r} \times \alpha \times r + \frac{r}{r} = \alpha \sqrt{r} \times r = 10 \sqrt{r} \quad S$$



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

$$\tan^2 \alpha = r$$

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

$$\tan^2 \alpha - r + \frac{1}{\cos^2 \alpha}$$

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

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

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

$$0 = r \tan^2 \alpha - \frac{1}{\cos^2 \alpha} + 10$$

Shrink  $\rightarrow y$

9

$$x^T x^T + 1 = x^T x^T + 1 y^T = K$$

$$(y_j)^2 = 2$$

$$0.5 \quad x^T x^T + 1 y^T = 0$$

$$0.5 x^T x^T + 1 y^T = 0$$

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

$$1 y^T = 1 y^T = 2$$

$$y^T = 1 y^T = 2$$

$$\frac{1 - \cos^2}{\cos^2}$$