

$$S = ab \sin \theta \rightarrow \omega r = 2\alpha \cdot 3\alpha \cdot \frac{\sin 150^\circ}{1} \rightarrow \omega r = 3\alpha^2 \cdot \alpha^2 = 18 \quad \alpha = \sqrt{18} = 3\sqrt{2}$$

$$a = 2\alpha = 2 \times 3\sqrt{2} = 4\sqrt{2}$$

$$b = 3\alpha = 3 \times 3\sqrt{2} = 9\sqrt{2}$$

$$\left. \begin{array}{l} a = 4\sqrt{2} \\ b = 9\sqrt{2} \end{array} \right\} \rho = 2(a+b) = 2 \times 13\sqrt{2} = \boxed{26\sqrt{2}}$$

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$$S_{ABC} = \frac{1}{r} AB \sin \theta \rightarrow \frac{1}{r} \times \omega \times v \sin \theta = \frac{v\omega}{r} \sin \theta$$

$$S_{ADE} = \frac{1}{r} AD \sin \theta \rightarrow \frac{1}{r} \times v \times r \sin \theta = v \sin \theta$$

$$S_{ABC} - S_{ADE} = 1, v\omega \quad \frac{v\omega}{r} \sin \theta - v \sin \theta = 1, v\omega \quad \sin \theta \left(\frac{v\omega}{r} - 1 \right) = 1, v\omega$$

$$\sin \theta = 0, \omega = \frac{1}{r} \xrightarrow{\text{زاویه تارو}} \theta = 30^\circ \quad \tan 30^\circ = \boxed{\frac{\sqrt{3}}{3}}$$

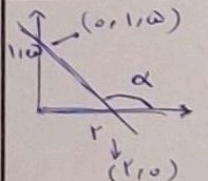
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$$\frac{|\sin \alpha|}{\cos \alpha} = -\frac{1}{\cot \alpha} \rightarrow \frac{|\sin \alpha|}{\cos \alpha} = \frac{-\sin \alpha}{\cos \alpha} \rightarrow \cos \alpha + \sin \alpha =$$

$$\frac{1}{\sqrt{\cos 2\alpha}} - \tan \alpha = \frac{1 + \sin \alpha}{|\cos \alpha|} \quad \tan - \cot -$$

نام و نام خانوادگی

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$$m = \frac{0 - 1}{1 - 0} = -\frac{1}{1} = -1 \xrightarrow{\text{زاویه تند و معوس}} \tan \alpha = \frac{1}{1}$$

$$\tan \left(\frac{\pi}{4} - \alpha \right) = \cot \alpha = \frac{1}{\tan \alpha} = \boxed{\frac{1}{1}}$$

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$$\frac{r \cos(2r^\circ) - r \sin(1\omega^\circ)}{\sin(2r^\circ) - \cos(2r^\circ)} \rightarrow \frac{r(-\cos 4r^\circ) - r \sin 2r^\circ}{-\sin 2r^\circ - \cos 4r^\circ} \xrightarrow{\cos 4r^\circ = \sin 2r^\circ}$$

$$\frac{-r \sin 2r^\circ - r \sin 2r^\circ}{-\sin 2r^\circ - \sin 2r^\circ} = \frac{-2r \sin 2r^\circ}{-2 \sin 2r^\circ} = \boxed{\frac{\omega}{r}}$$

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$$\cos \alpha = \frac{r}{\mu} \quad \frac{\sin(\frac{\pi}{r} + \alpha) - \sin(\alpha - \pi)}{|\tan \alpha - 1|} \rightarrow \frac{+\cos \alpha + \sin \alpha}{|\tan \alpha - 1|} \rightarrow \frac{\frac{r}{\mu} + \frac{\sqrt{\omega}}{\mu}}{|\frac{\omega}{r} - 1|} \rightarrow$$

$$\downarrow$$

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

$$\tan \alpha = \frac{\frac{\sqrt{\omega}}{\mu}}{\frac{r}{\mu}} = \frac{\sqrt{\omega}}{r}$$

$$\frac{r + \sqrt{\omega}}{\mu} \cdot \frac{1}{\frac{\omega}{r} - 1} = \boxed{\frac{r + r\sqrt{\omega}}{\mu}}$$

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$$\sin \alpha = r \cos \alpha \quad \frac{\sin \alpha}{\cos \alpha} = r$$

$$\sin^2 \alpha + \cos^2 \alpha = 1 \quad r^2 \cos^2 \alpha + \cos^2 \alpha = 1 \quad \omega \cos^2 \alpha = 1 \quad \cos^2 \alpha = \frac{1}{\omega} \quad \cos \alpha = \pm \frac{1}{\sqrt{\omega}}$$

$$\xrightarrow{\text{قوس موجي}} \cos \alpha = -\frac{1}{\sqrt{\omega}} = \boxed{-\frac{\sqrt{\omega}}{\omega}}$$

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$$r m \alpha + (m^2 - 1) y = r \rightarrow y = \frac{-r m}{m^2 - 1} x + \frac{r}{m^2 - 1} \rightarrow m' = \frac{-r m}{m^2 - 1}$$

$$m' = \tan 45^\circ = \sqrt{r} \quad \frac{-r m}{m^2 - 1} = \sqrt{r} \quad \sqrt{r} m^2 + r m - \sqrt{r} = 0 \quad m^2 + r m - r = 0$$

$$(m + r)(m - 1) \rightarrow m_1 = \frac{-r}{\sqrt{r}} \quad m_2 = \frac{1}{\sqrt{r}}$$

$$\left. \begin{array}{l} m_1 = \frac{-r}{\sqrt{r}} \\ m_2 = \frac{1}{\sqrt{r}} \end{array} \right\} m_1 - m_2 = \frac{-1}{\sqrt{r}} - \frac{-r}{\sqrt{r}} = \frac{r}{\sqrt{r}} = \boxed{\frac{r\sqrt{r}}{r}}$$

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$$-\frac{\pi}{r} < \alpha < \frac{\pi}{r} \rightarrow \frac{\pi}{r} > \frac{\pi}{r} - \alpha > 0 \rightarrow \tan(\frac{\pi}{r} - \alpha) > 0$$

$$\frac{1 - m}{r + m} > 0 \quad \frac{-r}{-\frac{r}{m} + r} \rightarrow \boxed{-r < m < 1}$$

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$$\underbrace{\tan(30^\circ)}_{-\sqrt{r}} \underbrace{\cos(110^\circ)}_{-\frac{\sqrt{r}}{r}} + \underbrace{\tan(110^\circ)}_{-\sqrt{r}} \underbrace{\sin(110^\circ)}_{\frac{\sqrt{r}}{r}} \rightarrow \left(-\sqrt{r} \times -\frac{\sqrt{r}}{r} \right) + \left(-\sqrt{r} \times \frac{\sqrt{r}}{r} \right)$$

$$\frac{r}{r} - \frac{r}{r}$$

$$\Rightarrow \boxed{0}$$

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