

$$C \times P_0 = 1A$$

$$P \times C = 2E$$

$$\frac{\delta E}{P} = 2V \Rightarrow P_0 - 2V = 3$$

$$1A + 2E + P = 2 \cdot V$$

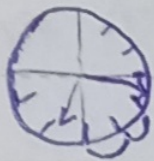
$$P_0 - 2 \cdot V = 18P$$

نصف الكرة
① الف

$$|\omega_1 \omega_m - P_0 h| = a$$

$$\omega_1 \omega \times \omega F - P_0 \times P = 2 \cdot V$$

$$P_0 - 2 \cdot V = 18P$$



$$P \times P_0 = C_0$$

$$P \times C = 1P$$

$$\frac{1A}{P} = 9$$

$$\left. \begin{array}{l} \\ \\ \end{array} \right\} \oplus \rightarrow 11$$

② الف

$$|8,8M - P_0 h| = a$$

$$|\omega_1 \omega \times 1A - P_0 \times C| = 11$$

$$S = \frac{a}{P} R^2 \Rightarrow \frac{\pi}{14} \times 9 = \frac{P}{K} \pi$$

③ الف

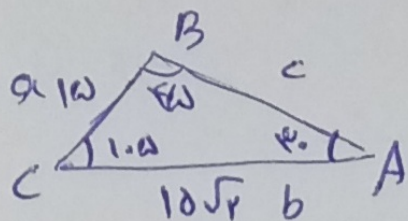
$$P = aR + 4 \Rightarrow \frac{\pi}{4} \times P + 4 = \frac{\pi}{P} + 4$$

f

$$S = \frac{1}{r} ab \sin \alpha \Rightarrow \frac{1}{r} \times \omega \times \Lambda \times \frac{\sqrt{r}}{r} = 10\sqrt{3} \quad \text{الف ٢}$$

$$c = \sqrt{a^2 + b^2 - 2ab \cos \alpha} = \sqrt{r^2 + r^2 - r^2} = \sqrt{r^2} = r \quad \text{ب}$$

$$P = V + \Lambda + \omega = r$$



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

$$\frac{10}{\frac{1}{r}} = \frac{10\sqrt{3}}{\sin B} = \frac{c}{\sin C}$$

$$\sin B = \frac{\sqrt{3}}{r} \xrightarrow{\sin B}$$

$$10.0 - 40.0 = 10.0 \Rightarrow C$$

$$\hookrightarrow \frac{10.0}{10.0} = \frac{R_{ad}}{r}$$

$$R_{ad} = \frac{10.0 r}{10.0} = \frac{V r}{10}$$

$$\frac{40}{10.0} = \frac{R_{ad}}{r}$$

$$R_{ad} = \frac{40 r}{10.0} = \frac{r}{4}$$

$$\frac{-\tan(\alpha) + r \tan(\alpha)}{-\tan(\alpha) - \tan(\alpha)} = \frac{r \tan(\alpha)}{-r \tan(\alpha)} = -1$$

$$\frac{\frac{r}{10}}{r} = \frac{D}{10.0} \Rightarrow D = 10$$

$$r \tan\left(\frac{r}{r} - 10\right) + \tan\left(\frac{r}{r} + 10\right)$$

$$r \tan(r - 10) - \tan\left(\frac{r}{r} - 10\right)$$

$$r \cot(10) - \cot(10)$$

$$-r \tan(10) - \cot(10)$$

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

$$\frac{\sin^2 \alpha + \cos^2 \alpha + P \sin \alpha \cos \alpha}{\sin^2 \alpha - \cos^2 \alpha} + \frac{\sin^2 \alpha + \cos^2 \alpha - P \sin \alpha \cos \alpha}{\sin^2 \alpha - \cos^2 \alpha} = \quad (1)$$

$$\sin^2 \alpha - \cos^2 \alpha$$

$$\sin^2 \alpha - \cos^2 \alpha$$

$$P \sin^2 \alpha + P \cos^2 \alpha$$

$$\sin^2 \alpha - \cos^2 \alpha$$

$$\frac{\cos^2 \alpha \text{ يُلغى }}{\text{بـ } P \text{ يبقـى}}$$

$$\frac{P \tan^2 \alpha + P}{\tan^2 \alpha - 1} = P \rightarrow P \tan^2 \alpha - P = P \tan^2 \alpha + P$$

$$\tan^2 \alpha = \omega$$

$$\frac{\cos^2 \alpha \text{ يُلغى }}{\text{بـ } P \text{ يبقـى}} \rightarrow \frac{\tan^2 \alpha - P + \frac{1}{\cos^2 \alpha}}{\tan^2 \alpha + P - \frac{1}{\cos^2 \alpha}} = \frac{\tan^2 \alpha - P + 1 + \tan^2 \alpha}{\tan^2 \alpha + P - 1 - \tan^2 \alpha} \quad (2)$$

$$\frac{P \tan^2 \alpha - 1}{1} = P \quad \tan^2 \alpha = \frac{\omega}{P}$$

$$\cos^2 \alpha = 1 - P \sin^2 \alpha \quad (\text{المع } (1))$$

$$\frac{\sqrt{P}}{P} = 1 - P \sin^2 \alpha \rightarrow \sin^2 \alpha = \frac{P - \sqrt{P}}{P}$$

$$\cos \alpha = \sqrt{\frac{1 - P + \sqrt{P}}{P}} = \frac{\sqrt{\sqrt{P} - 1}}{P}$$

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

$$\sin \alpha = \frac{\sqrt{P + \sqrt{P}}}{P}$$