

$$\frac{a + \frac{-\sqrt{3}}{2} + \frac{-b\sqrt{3}}{2}}{a + \frac{-\sqrt{3}}{2} + \frac{b\sqrt{3}}{2}} = \frac{\frac{\sqrt{3}}{2}(-a-b)}{\frac{\sqrt{3}}{2}(-a+b)} = \frac{-a-b}{-a+b} = \frac{-\sqrt{3}}{2} \Rightarrow$$

$$-3a-3b = \sqrt{3}a - \sqrt{3}b \Rightarrow -3a - \sqrt{3}a = -\sqrt{3}b + 3b \Rightarrow a(-3-\sqrt{3}) = b(-\sqrt{3}+3) \Rightarrow$$

$$\frac{-3-\sqrt{3}}{-\sqrt{3}+3} = \frac{b}{a}$$

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$P \rightarrow \cos P = \frac{1}{2} \Rightarrow \sin P = \frac{\sqrt{3}}{2} \Rightarrow P = \frac{\pi}{3} = \frac{60^\circ}{\pi}$

$P' \rightarrow (0, -1)$

$\Rightarrow 1 + 1 + (\sqrt{\frac{1}{4} + 1 + \frac{3}{4}}) = 2 + \sqrt{\frac{5}{2} + \frac{3}{2}} = 2 + \sqrt{2}$

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$\Rightarrow \frac{\omega}{\pi} = \frac{1}{6} \times 2\pi = \frac{\pi}{3} \Rightarrow \frac{\pi}{6} \mid \frac{\pi}{3} \rightarrow \frac{\pi}{6} \times 4 = \frac{\pi}{3} \times 4 = \frac{4\pi}{3} = \frac{240^\circ}{\pi}$

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$-\frac{\pi}{2} < x \leq \frac{\pi}{2} \Rightarrow -\frac{1}{2} < \sin x \leq 1 \Rightarrow \frac{1}{2} = \frac{m-\pi}{\omega} \Rightarrow m = \frac{1}{2}\omega$

$\frac{1}{2} < m \leq 1$

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$$\frac{\sin 10^\circ + k \cos(190^\circ)}{\cos 190^\circ + r \sin 190^\circ} = \frac{-\cos 10^\circ + (-k \sin 10^\circ)}{-\cos 10^\circ + (-r \sin 10^\circ)} \Rightarrow \tan 10^\circ = \frac{r}{k} = \frac{1}{r} \xrightarrow{\sin}$$

$$\frac{-r-k}{-r-r} = 1 \Rightarrow -1 = -r-k = 1 \quad \underline{k=1r}$$

6

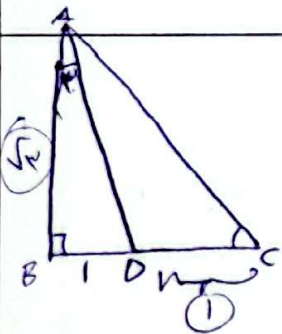
$$r + r \cos \alpha = 1 - \cos \alpha \Rightarrow \cos \alpha = \frac{-1}{r} \Rightarrow \cos^2 \alpha + \sin^2 \alpha = 1 \Rightarrow \frac{1}{r^2} + \left(\frac{1}{r}\right)^2 = 1 \Rightarrow \sin \alpha = \frac{\sqrt{1-r^2}}{r}$$

$$\tan \alpha = -\sqrt{1-r^2} \quad \left. \begin{array}{l} \tan \alpha = -\sqrt{1-r^2} \\ \cos \alpha = \frac{-1}{r} \end{array} \right\} \Rightarrow \frac{c.t \alpha + c.i \alpha}{- \tan \alpha + -r \sin \alpha} = \frac{r \times \left(-\frac{1}{r}\right)}{-r(-\sqrt{1-r^2})} = \frac{-r}{r\sqrt{1-r^2}} = \frac{-1}{\sqrt{1-r^2}}$$

7

$$10^\circ = \frac{r_A}{\omega} / \frac{r_A}{\omega} \times r_A = \frac{9\pi}{10} \times r_B \Rightarrow \frac{r_A}{r_B} = 1 \Rightarrow \frac{s_A}{s_B} = \frac{1}{3}$$

8

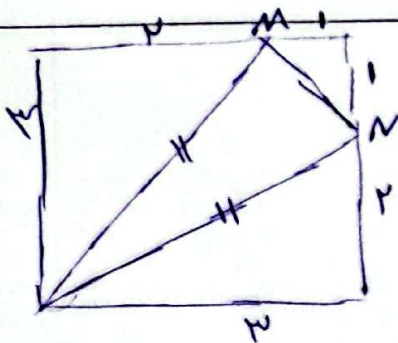


$$\Rightarrow AB = \sqrt{r} \times 1 = \frac{\sqrt{r}}{r} / \frac{\sqrt{r} \times \sqrt{5}}{r} = \sqrt{r} \times \frac{1}{\sqrt{5}} = \frac{\sqrt{r}}{\sqrt{5}} = r$$

$$\frac{DC=1}{AC=\sqrt{5}} / \frac{\sin C = \frac{\sqrt{r}}{\sqrt{5}}}{\cos C = \frac{r}{\sqrt{5}}} / r \sin C \Rightarrow$$

$$r \left(\frac{r}{\sqrt{5}} \times \frac{\sqrt{r}}{\sqrt{5}} \right) = \frac{r\sqrt{r}}{\sqrt{5}}$$

9



$$\cos \theta = r \times r = \frac{1}{3} / s_{\Delta} \Rightarrow \frac{1}{r} + r = \frac{4}{3}$$

$$s_D - s_{\Delta} \Rightarrow 1 - r = \frac{1}{3} \Rightarrow r = \frac{2}{3} \Rightarrow \sin \theta = \frac{1}{3}$$

$$NA = \sqrt{r^2 + 1} = \sqrt{\frac{4}{9} + 1} = \frac{5}{3} \Rightarrow \frac{1}{3} = \sin \theta$$

10