

دھرم B

ایلیا فاکس

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$$\tan \frac{3\pi}{8} + \sin \frac{5\pi}{8} \cos \frac{4\pi}{8} = -1 + \frac{-\sqrt{2}}{2} \times \frac{-\sqrt{2}}{2} = -1 + \frac{1}{2} = -\frac{1}{2} \checkmark$$

$$\tan \frac{\Delta\pi}{8} \sin \frac{\Delta\pi}{8} + \cos \frac{5\pi}{8} = -\frac{\sqrt{2}}{2} \times \left(-\frac{\sqrt{2}}{2}\right) + \left(-\frac{1}{2}\right) = 0 \checkmark$$

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$$\frac{\sin x (x \cot x - 1)}{\sin x (\cot x + 1)} = \frac{1x - 1}{x + 1} = \frac{11}{\Delta} \checkmark$$

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$$\sin^4 \alpha + \cos^4 \alpha = 1 \quad (1 \cos \alpha)^2 + \cos^4 \alpha = 1 \quad \Delta \cos^4 \alpha = 1 \Rightarrow \cos^4 \alpha = \frac{1}{\Delta}$$

$$\cos \alpha = \frac{-1}{\sqrt{\Delta}} = -\frac{\sqrt{\Delta}}{\Delta} \checkmark$$

میں

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$$\sin \alpha = \frac{\sqrt{2}}{1.0} \quad \cos \alpha = -\frac{\sqrt{2}}{1.0} \quad \cos \left(\frac{3\pi}{8} + \alpha\right) = \frac{-\sqrt{2}}{1.0} \times \frac{\sqrt{2}}{2} - \frac{\sqrt{2}}{1.0} \times \frac{\sqrt{2}}{2} = \frac{4}{1.0} \checkmark$$

$$\sqrt{\sin \alpha} = \cos \alpha \quad \sin^2 \alpha + 89 \sin^2 \alpha = 1 \quad \Delta \sin^2 \alpha = 1 \quad \sin \alpha = \frac{\sqrt{\Delta}}{\Delta} = \frac{\sqrt{2}}{1.0}$$

$$\cos \alpha = \frac{\sqrt{2}}{1.0} \quad \sin \left(\frac{\Delta\pi}{8} + \alpha\right) = \frac{-\sqrt{2}}{2} \times \frac{\sqrt{2}}{1.0} + \frac{\sqrt{2}}{1.0} \times \frac{-\sqrt{2}}{2} = \frac{-1}{1.0} \checkmark$$

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$$\sin^2 x + \sin^2 x + \cos^2 x = 1 + \frac{1}{2} \Rightarrow \sin^2 x = \frac{1}{2} \Rightarrow \sin x = \pm \frac{\sqrt{2}}{2}$$

$$\cos^2 x = \frac{1}{2} \quad \tan^2 x = \frac{1}{2} \checkmark$$

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$$\frac{4 \sin \alpha \times \sqrt{r}}{r} = \frac{q}{r}$$

$$4 \sin \alpha = \frac{q}{\sqrt{r}} \quad \sin \alpha = \frac{\sqrt{r}}{4} \Rightarrow \alpha = \begin{cases} 4.0 \\ 14.0 \end{cases}$$

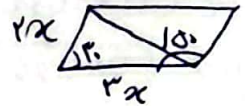
$$\frac{14.0}{4.0} = \boxed{2} \checkmark$$

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$$S = r \left( \frac{4 \pi r \times \frac{1}{r}}{r} \right) = \Delta \epsilon$$

$$\frac{\pi r}{r} = q \quad \pi r = u \quad \pi = \frac{u}{r}$$

$$P = r(4\sqrt{r} + 9\sqrt{r}) = 13\sqrt{r} \checkmark$$



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$$\frac{S(\triangle ABC)}{S(\triangle ADE)} = \frac{\frac{\Delta \times V \sin \alpha}{r}}{\frac{\epsilon \times V \sin \alpha}{r}} = \frac{\Delta}{\epsilon}$$

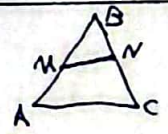
$$\begin{aligned} S(ABC) &= \Delta \times \\ S(AED) &= \epsilon \times \\ S(ADE) &= \epsilon \times 1, V \Delta = V \end{aligned}$$

$$\begin{aligned} \Delta \times - \epsilon \times &= 1, V \Delta \\ \pi &= 1, V \Delta \end{aligned}$$

$$\frac{\epsilon \times V \sin \alpha}{r} \Rightarrow \sin \alpha = \frac{1}{r} \Rightarrow \alpha = \frac{\pi}{4} \Rightarrow \tan \alpha = \frac{\sqrt{r}}{r} \checkmark$$

2

$$\frac{S(BMN)}{S(ABC)} = \frac{\frac{\pi \times MB \times \sin B}{r}}{\frac{\Delta \times AB \times \sin B}{r}} = \frac{1}{r} \Rightarrow \frac{\pi}{\Delta} \times \frac{MB}{AB} = \frac{1}{r} \Rightarrow \frac{MB}{AB} = \frac{\Delta}{q}$$



$$\Rightarrow \frac{MB}{AM} = \frac{\Delta}{\epsilon} \checkmark$$

2

$$\frac{|\sin \alpha|}{\cos \alpha} = -\frac{\sin \alpha}{\cos \alpha} \Rightarrow \sin \alpha < 0$$

$$\frac{1}{\sqrt{\cos \alpha}} - \frac{\sin \alpha}{\cos \alpha} = \frac{1 + \sin \alpha}{|\cos \alpha|} \Rightarrow \frac{1}{|\cos \alpha|} = \frac{\sin \alpha}{\cos \alpha} \Rightarrow$$

$$\Rightarrow \frac{1}{|\cos \alpha|} + \frac{\sin \alpha}{|\cos \alpha|}$$

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$$\frac{-\sin \alpha}{\cos \alpha} = \frac{\sin \alpha}{|\cos \alpha|} \Rightarrow |\cos \alpha| = -\cos \alpha$$

ناتمام

$$\Rightarrow \cos \alpha < 0$$