

نام و نام خانوادگی: پاسخنامه تشریحی تکلیف شماره ۱.۸... کلاس: A

$$a) \tan\left(\frac{3\pi}{4} + \frac{\pi}{4}\right) + \sin\left(\frac{3\pi}{4} + \frac{\pi}{4}\right) \cos\left(\frac{3\pi}{4} + \frac{\pi}{4}\right) = -1 + \left(-\frac{\sqrt{2}}{2}\right)\left(-\frac{\sqrt{2}}{2}\right) = \boxed{-\frac{1}{2}}$$

$$b) \tan\left(\frac{3\pi}{4} - \frac{\pi}{4}\right) \sin\left(\frac{3\pi}{4} - \frac{\pi}{4}\right) + \cos\left(\frac{3\pi}{4} - \frac{\pi}{4}\right) = \frac{1}{\sqrt{2}} \times \frac{\sqrt{2}}{2} + \left(-\frac{1}{2}\right) = \boxed{-1}$$

$$\cot^2 \alpha + 1 = \frac{1}{\sin^2 \alpha} \Rightarrow \frac{1}{16} = \sin^2 \alpha \Rightarrow \sin \alpha = \frac{1}{4} \Rightarrow \cos \alpha = \frac{\sqrt{15}}{4}$$

$$\frac{\frac{12}{\sqrt{16}} - \frac{1}{\sqrt{16}}}{\frac{12}{\sqrt{16}} + \frac{1}{\sqrt{16}}} = \frac{\frac{11}{\sqrt{16}}}{\frac{13}{\sqrt{16}}} = \boxed{\frac{11}{13}}$$

$$\sin^2 \alpha + \cos^2 \alpha = 1 \Rightarrow \frac{1}{5} \cos^2 \alpha + \cos^2 \alpha = 1 \Rightarrow \cos^2 \alpha = \frac{5}{6} \Rightarrow \cos \alpha = \frac{\sqrt{30}}{6}$$

$$\sin \alpha = \frac{\sqrt{6}}{6}$$

$$a) \cos\left(\frac{11\pi}{6} + \alpha\right) = \cos \frac{11\pi}{6} \cos \alpha - \sin \frac{11\pi}{6} \sin \alpha = \frac{\sqrt{3}}{2} \times \frac{\sqrt{3}}{2} - \frac{1}{2} \times \frac{1}{2} = \frac{3}{4} - \frac{1}{4} = \frac{2}{4} = \boxed{\frac{1}{2}}$$

$$b) \sin\left(\frac{13\pi}{6} + \alpha\right) = \sin \frac{13\pi}{6} \cos \alpha + \cos \frac{13\pi}{6} \sin \alpha = \frac{\sqrt{3}}{2} \times \frac{\sqrt{3}}{2} + \frac{1}{2} \times \frac{1}{2} = \frac{3}{4} + \frac{1}{4} = \frac{4}{4} = \boxed{1}$$

$$\begin{cases} 2 \sin^2 \alpha + \cos^2 \alpha = \frac{5}{4} \\ \sin^2 \alpha + \cos^2 \alpha = 1 \end{cases} \Rightarrow \sin^2 \alpha = \frac{1}{4} \Rightarrow \cos^2 \alpha = \frac{3}{4}$$

$$\frac{1}{4} = \frac{1}{4}$$



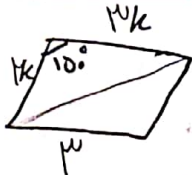
$$\frac{1}{4} \times 4 \times \sqrt{2} \times \sin \alpha = F/2$$

$$\sin \alpha = \frac{F/2}{4 \times \sqrt{2}} = \frac{\sqrt{2}}{4}$$

$$\Rightarrow \alpha = 14.0^\circ \quad \alpha = 4.0^\circ$$

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

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$$10k \times 10k \times \sin 10^\circ = 2F$$

$$4k^2 = 10 \Rightarrow k^2 = 10 \Rightarrow k = \sqrt{10}$$

$$2(10\sqrt{10}) + 2(10\sqrt{10}) = 10\sqrt{2} + 10\sqrt{2} = 20\sqrt{2}$$

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$$\frac{1}{4} \times 4 \times V \times \sin A - \frac{1}{4} \times 4 \times V \times \sin A = 1/2 \times V \times D$$

$$\sin A (1/2 \times D - 1/2) = 1/2 \times V \times D \Rightarrow \sin A = \frac{1}{2} \Rightarrow \cos A = \frac{\sqrt{3}}{2}$$

$$\Rightarrow \tan A = \frac{\sqrt{3}}{3}$$

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$$2BN = 2NC$$

$$S_{ABC} = 2S_{BMN}$$

$$\frac{1}{2} \times (x+y) \times 2k \times \sin B = \frac{1}{2} \times x \times y \times 2k \times \sin B$$

$$\partial x + \partial y = 9x$$

$$\partial y = 8x$$

$$\frac{BM}{AM} = \frac{8}{9}$$

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

for not

$$\frac{1}{|\cos \alpha|} - \frac{\sin \alpha}{\cos \alpha} = \frac{1 + \sin \alpha}{|\cos \alpha|} \Rightarrow \cos \alpha < 0$$

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