

النسيان

$$\textcircled{1} \quad \text{الف} \quad \left(\frac{\sqrt{2}-\sqrt{3}}{2} \right) \left(\frac{\sqrt{2}+\sqrt{3}}{2} \right) = \boxed{-\frac{1}{2}}$$

$$\text{ب) } \frac{1+3x^2}{4x^2+2x^2} = \boxed{\frac{1}{2}}$$

$$\text{وتر} = \frac{\sqrt{2}}{2} = \frac{\sqrt{2}}{2}$$

$$\text{الف) } AH = \frac{\sqrt{2}}{2} \times \sqrt{6} = \frac{\sqrt{12}}{2}$$

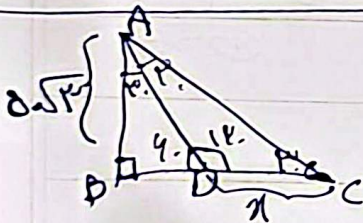
$$(HC)^2 = (2\sqrt{3})^2 - \left(\frac{\sqrt{12}}{2} \right)^2 = 12 - 3$$

$$\textcircled{2} \Rightarrow HC = \sqrt{9} = 3$$

$$\text{ب) } \sin 30^\circ = \frac{1}{2} = \frac{AH}{AC} \Rightarrow AH = 3\sqrt{3}$$

$$\cos 30^\circ = \frac{\sqrt{3}}{2} = \frac{4\sqrt{3}}{AC} \Rightarrow AC = 4\sqrt{3}$$

$$\sin \beta = \frac{3\sqrt{3}}{4\sqrt{3}} = \frac{3}{4} = \frac{\sqrt{5}}{2} \Rightarrow \boxed{\hat{\beta} = 45^\circ}$$



$$\text{الف) } \frac{\sqrt{2}}{2} AD = AB \Rightarrow AD = 1$$

$$BD = 2\sqrt{3} \Rightarrow \boxed{x = 1}$$

$$\text{ب) } \frac{1}{2} x = 2 \Rightarrow x = 4$$

$$\left(\frac{\sqrt{12}}{2} \right)^2 + 1^2 = (DC)^2 \Rightarrow DC = \sqrt{4}$$

$$\sin \alpha = \frac{1}{\sqrt{12}} = \boxed{\frac{\sqrt{3}}{12}}$$



$$\frac{\sqrt{2}}{2} AC = \frac{2}{2} \Rightarrow AC = \frac{2}{\sqrt{2}}$$

$$\frac{AB}{AC} = \frac{2 + \frac{\sqrt{2}}{2}}{\frac{2}{\sqrt{2}}}$$

07/11/21

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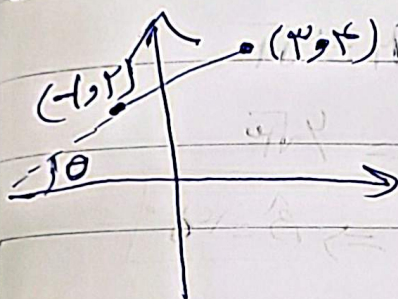
$$\boxed{\frac{\sqrt{2}+\sqrt{6}}{2}}$$

$$\frac{1}{2} ab \sin \hat{C} \quad p_1 = B_1$$

$$\frac{S_{ABC}}{S_{ABD}} = \frac{\frac{1}{2} \times 1 \times 1 \times \sin B_1}{\frac{1}{2} \times 1 \times 1 \times \sin B_1} = 1$$

$$(a) \quad \frac{1}{2} \times 1 \times 1 \times \sin 45^\circ = \frac{1}{2} \sqrt{2}$$

$$\hookrightarrow \frac{1}{2} \times 1 \times 1 \times \frac{1}{\sqrt{2}} = \frac{1}{2\sqrt{2}}$$

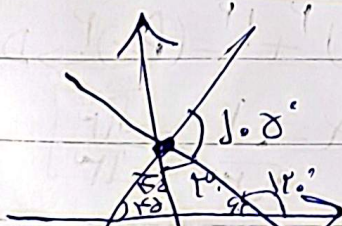


$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{4 - 2}{3 - (-1)} = \frac{2}{4} = \frac{1}{2}$$

$$\tan \theta = \frac{1}{2}$$

$$\frac{\tan \theta}{1 + \tan^2 \theta} = \frac{1}{5}$$

$$\cos \theta = \frac{2}{5}$$



$$y = x + 0$$

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$$\tan^{-1} 1 = 45^\circ$$

$$m = 1 \quad b = 0$$

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$$\textcircled{9} \quad -\cos x + \cos x + \cancel{\cos x} \Rightarrow \cot\left(\frac{\cancel{\cos x}}{4}\right) = -\frac{\sqrt{y}}{u}$$

$$\textcircled{10} \quad \frac{\cos x - \sin x}{-\cos x + \sin x} = \frac{(-\cos x + \sin x)}{-\cos x + \sin x} = -1$$