

$$\frac{AB}{\sin C} = \frac{BC}{\sin A} = \frac{AC}{\sin B} \Rightarrow \frac{AC}{\frac{1}{2}} = \frac{BC}{\frac{1}{\sqrt{4} + \sqrt{2}}} \quad - 4$$

$$\frac{AB}{AC} = \frac{2}{\sqrt{4} + \sqrt{2}} = \frac{\sqrt{4} - \sqrt{2}}{2} \quad \sin(40^\circ + 30^\circ) = \sin 10^\circ$$

$$= \sin 40^\circ \cos 30^\circ + \cos 40^\circ \sin 30^\circ = \frac{\sqrt{4} + \sqrt{2}}{2}$$

$$B_1 = B_2 \Rightarrow \frac{S_{ABF}}{S_{BCD}} = \frac{2 \times 3 \times \sin \hat{B}_1}{4 \times 3 \times \sin \hat{B}_2} = \frac{2}{4} \quad - 5$$

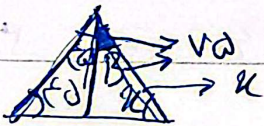
چون سینوس برابر

$$a) S_{\square} = ab \sin \hat{A} = 3 \times 4 \times \sin 120^\circ = 6\sqrt{3} \quad (\sin 60^\circ = \sin 120^\circ) \quad - 6$$

$$b) S_{\square} = \frac{1}{2} \times a \times b \times \sin \hat{A} = \frac{1}{2} \times 4 \times 3 \times \sin 120^\circ = 3\sqrt{3}$$

$$\tan \theta = \frac{y}{x} = \frac{\Delta y}{\Delta x} = \frac{1}{2} = a \quad PQ = \sqrt{4+1} = \sqrt{5} \quad - 7$$

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



$$y = x + \frac{a}{p} \Rightarrow \tan \alpha = 1 \Rightarrow \alpha = 45^\circ \quad \beta = 45^\circ - \frac{1}{\sqrt{2}} = 30^\circ$$

$$\alpha = 40^\circ \Rightarrow \tan \alpha = -m = \sqrt{3} \rightarrow m = -\sqrt{3}$$

$$b = \frac{a}{p} = 2, a = 2 \Rightarrow mb = -\sqrt{3} \times 2 = -2\sqrt{3}$$

کتاب مروری

Year:

Month:

Date:

Subject : (.....)

$$\left. \begin{aligned} \cos(\pi + x) &= -\cos x \\ \sin\left(\frac{\pi}{2} - x\right) &= \cos x \\ \tan\left(\frac{3\pi}{2} + x\right) &= -\cot x \end{aligned} \right\} \begin{aligned} &\rightarrow -\cos x + \cos x + \cot x \\ f(x) &= +\cot x \Rightarrow f\left(\frac{2\pi}{4}\right) = \cot\left(\frac{2\pi}{4}\right) \\ &= \cot 90^\circ = \boxed{-\sqrt{3}} \end{aligned} \quad -9$$

$$\left. \begin{aligned} \sin\left(\frac{17\pi}{4} + x\right) &= \sin\left(\frac{\pi}{4} + x\right) = \cos x \\ &\downarrow \\ 4\pi + \frac{\pi}{4} &= \frac{\pi}{4} \\ \cos\left(\frac{17\pi}{4} - x\right) &= \cos\left(\frac{5\pi}{4} - x\right) = -\sin x \\ &\downarrow \\ 4\pi + \frac{5\pi}{4} & \\ \cos(3\pi + x) &= \cos(\pi + x) = -\cos x \\ \sin(4\pi - x) &= \sin(2\pi - x) = -\sin x \end{aligned} \right\} \begin{aligned} &-10 \\ \frac{\cos x - \sin x}{-\cos x + \sin x} &= -1 \end{aligned}$$