DATE : SUBJECT :

۶- $ABCD \Rightarrow AB \parallel CD \longrightarrow \frac{FB}{FC} = \frac{AB}{EC} \rightarrow \frac{4-a}{4} = \frac{a}{\frac{3}{2}}$

$\rightarrow \frac{12}{3} - \frac{3a}{2} = 4a \rightarrow 12 - 3a = 14a \rightarrow a = \frac{12}{17} = \frac{2}{3}$

محیط $= a\sqrt{2} = \frac{2\sqrt{2}}{3}$

۷- $y - ax = 1 \quad ay - x = a - 1$

فاصله $= \frac{|c - c'|}{\sqrt{a^2+b^2}} = \frac{\sqrt{2}}{2}$ $\quad a = \frac{1}{a} \Rightarrow a^2 = \pm 1$

$a=1 \rightarrow y - x = 1 \checkmark \quad y - x = 0 \times$

$a=-1 \rightarrow y + x = 1 \times \quad y - x = 2 \times$

$\rightarrow d = \sqrt{x^2+y^2} \Rightarrow \left(\frac{\sqrt{2}}{2}\right)^2 + x^2 = 2d$

$\frac{\sqrt{2}}{2} \times \frac{\sqrt{2}}{2} = \frac{2}{4} \quad \frac{\sqrt{2}}{2} = \frac{\sqrt{2}}{8} \quad \frac{1}{2} - \frac{1}{2} = \frac{3}{4} \quad \frac{1}{2} = \frac{2}{4}$

$S = \frac{\sqrt{2}}{2} \times \frac{3\sqrt{2}}{2} = \frac{6}{4} = 1/5$

۱۰- $y = -2(x-3) = -2x + 12$ $\quad d = \frac{|-3-1|}{\sqrt{4+1}} = \frac{4}{\sqrt{5}}$

$\begin{cases} y = -2x + 12 \\ y = \frac{1}{2}x - \frac{1}{2} \end{cases}$ $\quad \begin{bmatrix} 2 & 1 \\ 1 & -\frac{1}{2} \end{bmatrix}$ $\quad S = \frac{1}{2} \times 4 \times 8 = 16$

$x = 8, y = 4$

۹- $(-\frac{1}{2}, b)(-\frac{1}{2}, a)$ $\quad m = \frac{b-a}{-\frac{1}{2}+\frac{1}{2}} = \frac{b-a}{\frac{1}{2}} = \sqrt{2}$

$\rightarrow b - a = \frac{\sqrt{2}}{2} \rightarrow$ طول $= \sqrt{(b-a)^2 + (-\frac{1}{2}-\frac{1}{2})^2}$

$\rightarrow \sqrt{(\frac{1}{2})^2 + (\frac{\sqrt{2}}{2})^2} = \frac{1}{2}$ $\quad$ محیط $= 4a = 4\sqrt{2} = \frac{\sqrt{2}}{2}$

۱۰- $\frac{2}{3} = m'$, $\frac{3}{2} = -\frac{1}{m} \Rightarrow m = 60°$ $\quad d = \sqrt{12} = \sqrt{4+8} = 2\sqrt{3}$ فاصله از مبدا

$A \Rightarrow y = \frac{2}{3}x$ $\quad L' \rightarrow y = \frac{2}{3}x + c$ $\quad O \in L' \Rightarrow 0 = 2 + c \Rightarrow \frac{c}{\sqrt{1+(\frac{2}{3})^2}} = \frac{c}{\frac{\sqrt{13}}{3}} = 2 \rightarrow c = \frac{2\sqrt{13}}{3}$

$L' \rightarrow y = \frac{2}{3}x + \frac{2\sqrt{13}}{3}$, $L \rightarrow y + 3 = -\frac{3}{2}(x+2)$ $\quad y = -\frac{3}{2}x - \frac{13}{2}$

$\rightarrow 12x_B + 10 = -8x_B - 26 \rightarrow -18 = 20x_B$

$\rightarrow x_B = -1$

$y_B = -\frac{3}{2} + \frac{2\sqrt{13}}{3} = 1$

$y_B \times x_B = \sqrt{}$

FABER-CASTELL

DATE : SUBJECT :

نام و نام خانوادگی : زرا دختری کلاس : سه تجربی ۳ رو ۵ دختر یازدهم تکلیف = ۱۷

۱- $A(-2,k)\ B(4,m)\ m=-\frac{1}{2}$

$-\frac{1}{2}=\frac{m-k}{6} \rightarrow m-k=-3 \rightarrow k-m=3$

$AB=\sqrt{(-4-2)^2+(k-m)^2}=\sqrt{36+9}=\sqrt{45}\quad s=\sqrt{45}\times\sqrt{45}=45$

۲-

$A(-1,4)\ B(3,1)\ C(x,y)\ D(-1-x,y+2)$

$x_A+x_C=x_B+x_D \rightarrow -1+x=3-1-x \rightarrow x=\frac{3}{2}$

$ABCD \rightarrow AB\perp BC \rightarrow m_{AB}=\frac{1-4}{3+1}=\frac{-3}{4}\quad m_{BC}=\frac{4}{\frac{3}{2}}=\frac{y-1}{\frac{3}{2}-3} \rightarrow y=1$

$C(\frac{3}{2},1)\ D(-\frac{5}{2},2)\quad AB=\sqrt{3^2+4^2}=5$

$BC=\sqrt{2^2+(\frac{3}{2})^2}=\frac{5}{2}$

$P_{مستطیل}=2(AB+BC)=2(\frac{10+5}{2})=15$

۳- $\tan 120=\sqrt{3} \rightarrow m \quad \frac{-2m}{m-1}=\sqrt{3} \rightarrow -2m=\sqrt{3}m^2-\sqrt{3}$

$\frac{-2m}{m^2-1}x+\frac{2}{m^2-1}=y \rightarrow \sqrt{3}m^2+2m-\sqrt{3}=0$

$\text{اختلاف}=\frac{\sqrt{\Delta}}{|a|}=\frac{\sqrt{16+12}}{|\sqrt{3}|}=\frac{4\sqrt{3}}{3}$

۴- $A(1,1)\ B(3,3)\ C(7,11)$

$m_{BC}=\frac{11-3}{7-3}=\frac{8}{4}=2\quad y-3=2(x-3) \rightarrow 2x-3=y$

$d=\frac{|2(1)-9-3|}{\sqrt{2^2+1^2}}=\frac{10}{\sqrt{5}}=\frac{10\sqrt{5}}{5}=2\sqrt{5}$

۵- $AB: 2y+6x=7$

$BC: 2y-7x=-11$

$11x=33 \rightarrow x=3,\ y=1$

$BH=\frac{|6y-3x-17|}{\sqrt{45}}=\frac{|6-9-17|}{\sqrt{45}}=\frac{22}{3\sqrt{5}}$

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