نام و نام خانوادگی ....رها ادهم........ پاسخنامه تشریحی تکلیف شماره ...۶... کلاس ...یازدهم B ریاضی...

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$A\left|\begin{matrix}4\\-6\end{matrix}\right.$ $B\left|\begin{matrix}2\\8\end{matrix}\right.$ $\left|\begin{matrix}3\\1\end{matrix}\right.$

$x_z=\frac{2+4}{2}=3$ $\quad y_z=\frac{8-6}{2}=1$

$a_{AB}=\frac{8-(-6)}{2-4}=-7 \xrightarrow{\text{منحط عمود}} \frac{1}{7}$

$y-1=\frac{1}{7}(x-3)$

$y=\frac{1}{7}x+\frac{4}{7}$

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$BC=\sqrt{(7-3)^2+(-4+1)^2}=5$ $\quad m_{BC}=\frac{7-3}{-4+1}=\frac{4}{-3} \rightarrow y-3=\frac{-4}{3}(x+1)$ $\quad y=-\frac{4}{3}x+\frac{5}{3}$

$\rightarrow 3y+4x-5=0$

$\frac{|4\times3+3\times1+(-5)|}{\sqrt{4^2+3^2}}=2$ $\quad \boxed{5\times2=10}$

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$\cancel{4y-2x=12}$

$2y-x=7 \longrightarrow m=\frac{1}{2}$

$4y=ax+2 \longrightarrow m=\frac{a}{4}$

$\Big\} \xrightarrow{=} a=2$

$2R=\frac{|-14+21|}{\sqrt{14+4}}=\frac{3}{2\sqrt{5}}$ $\quad R=\frac{3}{2\sqrt5}\times\frac{1}{2}=\frac{3}{\sqrt5}$

$\pi r^2=\pi\times\left(\frac{3}{\sqrt5}\right)^2=\frac{9}{5}\pi$

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$m_{AB}=\frac{3-1}{2-4}=\frac{2}{-2}=-1$ $\quad y-3=-1(x-2)$ $\quad y=-x+5$ $\quad m_{CH}=1$ $\quad y+3=1(x+1)$

$y=x-2$

$\begin{cases} y=-x+5 \\ y=x-2 \end{cases}$ $\quad y=\frac{3}{2}$ $\quad x=\frac{7}{2}$

$x_m=\frac{2+4}{2}=3$

$y_m=\frac{3+1}{2}=2$

$\sqrt{\left(\frac{7}{2}-3\right)^2+\left(\frac{3}{2}-2\right)^2}=\frac{\sqrt2}{2}$

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$a_1=\frac{-3m+2}{5-m}$

$a_2=\frac{m+1}{2m-4}$

$\frac{-3m+2}{5-m}=\frac{-2m+4}{m+1}$

$-3m^2+2m-3m+2=-3m+2m^2+2-4m$

$5m^2-3m+18=0$ ریشه ندارد

$A = x+2y-3 = 2y-4x+2 \rightarrow x=1,\ y=1$ $\begin{cases} x+2y-3 \\ y-2x+1 \end{cases}$ $B \rightarrow x+2y-3 = 2x+2y-8 \quad x=5,\ y=-1$ $\begin{cases} x+2y-3 \\ x+y-4 \end{cases}$ $C \rightarrow y-2x+1 = x+y-4 \quad x=\frac{5}{3} \quad y=\frac{7}{3}$ $\begin{cases} y-2x+1 \\ x+y-4 \end{cases}$ $M = \begin{cases} \frac{\frac{5}{3}+5}{2} = \frac{10}{3} \\ \frac{\frac{7}{3}+(-1)}{2} = \frac{2}{3} \end{cases}$ $Am = \sqrt{(1-\frac{10}{3})^2+(1-\frac{2}{3})^2} = \frac{5\sqrt{2}}{3}$ $AH = \frac{\lvert 1+1-4 \rvert}{\sqrt{2}} = \frac{2}{\sqrt{2}}$ $\boxed{\frac{\frac{5\sqrt{2}}{3}}{\frac{2}{\sqrt{2}}} = \frac{5}{3}}$		۶
$y+\frac{1}{2}x-c=0$ $\frac{\lvert 0-c \rvert}{\sqrt{1+\frac{1}{4}}} = \frac{c}{\frac{\sqrt{5}}{2}} = \sqrt{20} \rightarrow c=5$ $y+\frac{1}{2}x-5=0$: $y=0 \rightarrow x=10 \quad (10,0)$; $x=0 \rightarrow y=5 \quad (0,5)$ $\boxed{\sqrt{\underbrace{(10-0)^2+(0-5)^2}_{100+25}} = 5\sqrt{5}}$		۷
$y_A = x(1-m)+2$ $y_B = \frac{4}{m}x+2$ $x=0 \rightarrow y_{A,B}=2 \quad (0,2)$ $y=0$: $x_A = \frac{-2}{1-m} \quad (\frac{-2}{1-m}, 0)$; $x_B = -\frac{m}{2} \quad (0, -\frac{m}{2})$ $2 \times \frac{1}{2} \times \sqrt{(\frac{-2}{1-m})^2+(\frac{m}{2})^2} = \frac{5}{2}$ $m=3$, $m=2-\sqrt{5}$, $m=-2+\sqrt{5}$ $\xrightarrow{\times} -3$		۸
$(\frac{3}{2}, 0)$ $2 = \frac{\frac{3}{2}+x_{B'}}{2} \rightarrow x_{B'} = \frac{5}{2}$ $-2 = \frac{0+y_{B'}}{2} \rightarrow y_{B'} = -4$ $(\frac{5}{2}, -4)$ $\quad y+4 = 2(x-\frac{5}{2})$ $\boxed{y=2x-9}$ $a=2$		۹
$m_{AA'} = -1 \quad y-2 = -1(x-1) \quad y=-x+3$ $\begin{cases} y=-x+3 \\ y=x+5 \end{cases}$ $\quad -2x=2 \quad x=-1 \quad y=4$ $(a,b)=(-1,4)$ $\boxed{2b-a = 8+1 = 9}$		۱۰