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

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$A(4,-6) / B(2,8) \longrightarrow M(3,1)$

$m_{AB} = \frac{-6-8}{4-2} = -7 \xrightarrow{\text{عکس و قرینه}} \frac{1}{7} \longrightarrow y = \frac{1}{7}x + \frac{4}{7}$

$7y - x = 4$

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$C(-1,3) / B(-4,7) / A(3,1) \longrightarrow BC = \sqrt{(-1+4)^2 + (3-7)^2} = 5$

$m_{BC} = \frac{3-7}{-1+4} = \frac{-4}{3} \longrightarrow y = -\frac{4}{3}x + \frac{5}{3} \longrightarrow 3y + 4x = 5$

$A \longleftarrow BC = \frac{|3+12-5|}{\sqrt{16+9}} = 2 \longrightarrow 5 - 2 = 3$

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$2y - x = 7 \longrightarrow y = \frac{1}{2}x + 3/5$

$4y = ax + 2 \longrightarrow y = \frac{a}{4}x + \frac{1}{2}$ $\Big\} \longrightarrow \frac{a}{4} = \frac{1}{2} \longrightarrow a = 2$

$\hookrightarrow 2y - x = 7 \;,\; 2y - x = 2$ موازی $\frac{|7-2|}{\sqrt{5}}$ ، $\sqrt{5}$ = قطر $\longrightarrow \frac{\sqrt{5}}{2} = r$

$S_{\text{محاط}} = \pi r^2 = \frac{5}{4}\pi$

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AB عمود $\Rightarrow m_{AB} = \frac{3-1}{2-4} = -1 \longrightarrow y = -x + 5$ $\xrightarrow{C,H}$ عمود $y = x - 2$

$x - 2 = -x + 5 \longrightarrow 2x = 7 \Rightarrow x = 3/5 \;,\; y = 1/5 \longrightarrow H(3/5, 1/5)$

$M(3,2) \longrightarrow MH = \sqrt{(3/5-3)^2 + (1/5-2)^2} = \sqrt{\frac{1}{2}} = \frac{\sqrt{2}}{2}$

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$(3m-2)x + (5-m)y - 7 = 0 \longrightarrow y = \frac{2-3m}{5-m}x + \frac{7}{5-m}$

$(m+1)x - (2m-4)y + 1 = 0 \longrightarrow y = \frac{m+1}{2m-4}x + \frac{1}{2m-4}$

$\frac{2-3m}{5-m} \times \frac{m+1}{2m-4} = -1 \longrightarrow \frac{-3m^2 - m + 2}{-2m^2 + 14m - 20} = -1 \longrightarrow -3m^2 - m + 2 = 2m^2 - 14m + 20$

$5m^2 - 13m + 18 = 0$

$\Delta < 0 \longleftarrow$ هیچ m متناظر

$A(1,1)$ / $B(5,-1)$ / $C\left(\frac{5}{3},\frac{7}{3}\right)$ ← مطلوب ۱- برهن

$M\left(\frac{10}{3},\frac{2}{3}\right)$ ← $AM = \sqrt{\left(\frac{10}{3}-1\right)^2+\left(\frac{2}{3}-1\right)^2} = \frac{\sqrt{50}}{3} = \frac{5\sqrt{2}}{3}$ ۶

A, BC ← $\frac{|1+1-1|}{\sqrt{2}} = \sqrt{2}$ ← $\frac{\frac{5\sqrt{2}}{3}}{\frac{\sqrt{2}}{1}} = \boxed{\frac{5}{3}}$

$y = -\frac{1}{2}x + C \rightarrow 2y + x = 2C$ [0] $\frac{|-2C|}{\sqrt{4+1}} = \sqrt{20}$

$10 = |-2C| \rightarrow C = 5, -5$ $\xrightarrow{C=5}$ $2y + x = 10$ ← $A:(0,5)$ $B:(10,0)$ ۷

$\sqrt{25+100} = \sqrt{125} = \boxed{5\sqrt{5}}$

$y = (1-m)x + 2$ يمر من $\rightarrow x=0, y=2$ يمر من $x=?$ $x = \frac{2}{m-1}$

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

$\left|\frac{2}{m-1} + \frac{m}{2}\right| = 2/5 \rightarrow \frac{4+m^2-m}{2m-2} = 2/5 \rightarrow m = 3$ ۸

$\frac{4+m^2-m}{2m-2} = -2/5 \rightarrow m^2+4m-1 = 0 \rightarrow -1$ } $3\alpha - 1$ $\boxed{-3}$

$y = 2x - 3$ $\xrightarrow{m(2,-2)}$ $y = 2x - 6$

$\frac{|-3+6|}{\sqrt{1+4}} = \frac{3}{\sqrt{5}} = \frac{3\sqrt{5}}{5}$ } $\rightarrow \boxed{y = 2x - 9}$ ۹

$\frac{6\sqrt{5}}{5} = \frac{|-3+x|}{\sqrt{1+4}} \rightarrow x = 9$

$y = x + 5$, $A(1,2)$

$\rightarrow y = -x + 3 \rightarrow -x + 3 = x + 5 \rightarrow H(-1,4)$ ۱۰

$A(1,2)$ $x+5=y$ $y=-x+3$ $H(-1,4)$ $B?$

$\frac{1+x}{2} = -1$ $\rightarrow$ $\boxed{B(-3,6)}$

$\frac{2+y}{2} = 4$