16,5

نام و نام خانوادگی ......حسین حاجی حسینی...... پاسخنامه تشریحی تکلیف شماره ...14... کلاس ......B......

1 (2)	$\frac{8-(-6)}{2-4}=\frac{14}{-2}=-7$ $\quad \frac{1}{7}x+\frac{4}{7}=y$ ✓ $\frac{2+4}{2}=3$, $\frac{8+(-6)}{2}=1$ $\}$ (3,1) $\quad \frac{1}{7}x+b=y \Rightarrow \frac{1}{7}\times 3+b=1 \Rightarrow b=\frac{4}{7}$
2 (2)	$\frac{7-3}{-3+1}=\frac{4}{-2}$ $\quad -\frac{4}{3}x+b=y \Rightarrow -\frac{4}{3}x-4+b=7 \Rightarrow b=\frac{5}{3}$ $-\frac{4}{3}x+\frac{5}{3}=0 \Rightarrow -4x+5-3y=0$ $\sqrt{(-3)^2+(7-3)^2}=5$ ✓ BC $\quad \frac{\lvert -12+5-3\rvert}{5}=2$ ✓ ارتفاع AH $5\times 2=10$ واحد ✓
3 (1)	$4y=ax+2 \Rightarrow a=2$ ✓ $\quad \frac{\lvert c-c'\rvert}{\sqrt{a^2+b^2}}=\frac{\lvert 14-2\rvert}{\sqrt{16+4}}=\frac{12}{\sqrt{20}}=$ قطر $\frac{6}{\sqrt{5}}$ $2y=x+7 \xrightarrow{\times 2} 4y+2x+14$ $\frac{5}{2\sqrt{20}}=$ شعاع $\quad S=\pi r^2 \Rightarrow \pi\times\left(\frac{5}{2\sqrt{20}}\right)^2=\frac{25}{80}\pi=\frac{5}{16}\pi=\boxed{\frac{15.7}{16}}$ $r=\frac{3}{\sqrt{5}} \rightarrow S=\frac{9\pi}{5}$
4 (2)	$\frac{3-1}{2-4}=\frac{2}{-2}=-1 \Rightarrow -x+5=y \rightarrow -x+5-y=0$ $\quad \frac{\lvert 1+5-3\rvert}{\sqrt{2}}=\frac{3}{\sqrt{2}}\times\frac{\sqrt{2}}{\sqrt{2}}=\frac{3\sqrt{2}}{2}=CH$ $AB=2\sqrt{2} \Rightarrow MA=\sqrt{2}$ $CA=\sqrt{(3)^2+(6)^2}=\sqrt{45}$ $\}\Rightarrow 45=4.5+x^2 \Rightarrow x^2=40.5 \Rightarrow x=\frac{9\sqrt{2}}{2}$ $\frac{3\sqrt{2}}{2}-\sqrt{2}=\boxed{\frac{1}{2}\sqrt{2}}=\boxed{\frac{\sqrt{2}}{2}}$ ✓
5 (2)	$(5-m)y=-(3m-2)x+7 \Rightarrow a=-\frac{(3m-2)}{5-m}$ $\}\Rightarrow \frac{5-m}{3m-2}=\frac{m+1}{4m-4}$ $(m+1)x+1=(4m-4)y \Rightarrow \frac{m+1}{4m-4}=a$ $3m^2+m-2=14m-2m^2-20$ $5m^2-13m+18=0 \Rightarrow \Delta<0 \Rightarrow$ به ازای هیچ m ✓

۶ (۲)

$AC = AB \Rightarrow$ ~~...~~

$\left.\begin{array}{l} 2x + 4y = 6 \\ y - 2x = -1 \end{array}\right\} \Rightarrow x = 1 ,\ y = 1 \Rightarrow A \rightarrow \begin{vmatrix} 1 \\ 1 \end{vmatrix}$

$\sqrt{\left(1 - \frac{1}{2}\right)^2 + \left(1 - \frac{2}{2}\right)^2} = \sqrt{\frac{5}{9}} = \frac{\sqrt{5}}{3}$

$AH = \sqrt{2}$

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۷ ✓

$B \Rightarrow \left.\begin{array}{l} x + 2y = 3 \\ x + y = 4 \end{array}\right\} \Rightarrow y = -1 ,\ x = 5$

$C \Rightarrow \left.\begin{array}{l} -y + 2x = +1 \\ x + y = 4 \end{array}\right\} \Rightarrow 3x = 5 \Rightarrow x = \frac{5}{3} ,\ y = \frac{7}{3}$

وسط: $\begin{vmatrix} \frac{1}{2} \\ \frac{3}{2} \end{vmatrix}$

$\frac{\frac{5\sqrt{2}}{2}}{\sqrt{2}} = \boxed{\frac{5}{3}}$

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(۲)

$-\frac{1}{2}x + C = y \Rightarrow \frac{|C|}{\sqrt{\frac{1}{4} + 1}} = \sqrt{20} \Rightarrow |C| = \frac{\sqrt{5}}{2} \times \sqrt{20} \Rightarrow 5 = C$

$-\frac{1}{2}x + 5 = y \Rightarrow -\frac{1}{2}x + 5 = 0 \Rightarrow x = 10$

$10^2 + 5^2 = AB^2 \Rightarrow AB = \boxed{5\sqrt{5}}$ ✓

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۸ (۰)

$y = -mx + x + 2 \Rightarrow y = (1 - m)x + 2$

$my = 4x + 2m \Rightarrow y = \frac{4}{m}x + 2$

$\Rightarrow (1 - m) = \frac{4}{m} \Rightarrow m - m^2 = 4 \Rightarrow$

$m^2 - m + 4 = 0 \Rightarrow \Delta < 0 \Rightarrow$

جواب صفحه بعد ...

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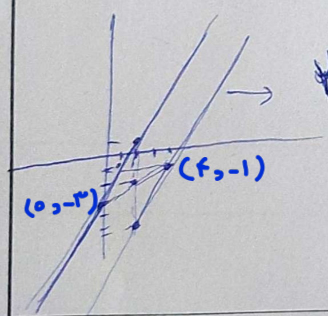
۹ (۲)



$\rightarrow 4x - 9 = y$ ✓

کامل‌تر بنویس!

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۱۰ (۱,۵)

$AA' : -x + 3$

$A(1, 2)$

$-x + 3 = x + 5 \Rightarrow x = -1 \Rightarrow \begin{vmatrix} -1 \\ 4 \end{vmatrix}$

$\frac{1 + a}{2} = -1 \Rightarrow a = -3$ ✓

دقت! $\frac{2 + b}{2} = 4 \Rightarrow b = 6$

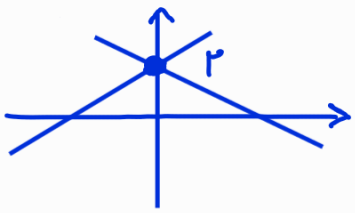
$2b - a = \boxed{8 + 3 = 11}$

$2b - a = \boxed{15}$

(۸)

$y = \frac{۴}{m}x + ۲$

$y = (۱-m)x + ۲$ $\longrightarrow$



هر دو خط در نقطه $(۰, ۲)$ متقاطع اند پس ارتفاع مثلث ۲ واحد است

حالا من ریم سراغ محل برخورد شون با محور x ها:

$y = \frac{۴}{m}x + ۲ \xrightarrow{y=۰} x = \frac{-m}{۲}$

$y = (۱-m)x + ۲ \xrightarrow{y=۰} x = \frac{۲}{m-۱}$

Δ قاعده $= \left| \frac{۲}{m-۱} - (-\frac{m}{۲}) \right|$

$S_\Delta = \left| \frac{m^۲ - m + ۴}{۲(m-۱)} \right| \times ۲ \times \frac{۱}{۲} = \frac{۵}{۲} \rightarrow$

معادله اول: $m = ۳$

معادله دوم: $\Delta > ۰ \rightarrow \frac{c}{a} = -۱$

۳- حاصل ضرب مقادیر m ←