

نام و نام خانوادگی امیرحسین عینی پاسخنامه تشریحی تکلیف شماره ۱۷ کلاس یازدهم

$(-2, k)$ و $(4, m)$

$$\rightarrow m = \frac{k-m}{-2-4} = \frac{1}{3} \rightarrow k-m=3$$

$(-2, k)$ $(4, m)$ $\rightarrow$ فاصل $= \sqrt{(k-m)^2 + (-2-4)^2} = \sqrt{9+36} = \sqrt{45}$

$\rightarrow S = (\sqrt{45})^2 = 45 \checkmark$

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$A(-1, 4)$ $B(2, 1)$

$D(-1-x, y+3)$ $C(x, y)$

$\rightarrow y+4=y+1$

$\rightarrow 3-1-x=x-1$

$2x=3 \rightarrow x=\frac{3}{2} \rightarrow y=\frac{5}{2}-1$

$d_{AB} = \sqrt{(-1-2)^2 + (4-1)^2} = \sqrt{16+9} = \sqrt{25} = 5 \checkmark$

$d_{BC} = \sqrt{(\frac{3}{2}-2)^2 + (y-1)^2} = \sqrt{\frac{1}{4} + 4} = \sqrt{\frac{17}{4}} = \frac{\sqrt{17}}{2} \checkmark$

$m_{AB} = \frac{4-1}{-1-2} = \frac{3}{-3} = -1 \rightarrow m_{BC} = \frac{4}{3}$

$\rightarrow \frac{4}{3} = \frac{y-1}{\frac{3}{2}-2} \Rightarrow \frac{4}{3} = \frac{y-1}{-\frac{1}{2}} = \frac{-(y-1)}{\frac{1}{2}} \rightarrow -2 = y-1$

$\rightarrow y = -1$

$\rightarrow 2(d+\frac{d}{2}) = 2(\frac{10}{2}) = 10 \checkmark$

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$\tan 60^\circ = \sqrt{3}$

$y = \frac{-2mx+3}{m^2-1} \rightarrow M_{\text{شیب}} = \frac{-2m}{m^2-1} = \sqrt{3} \rightarrow \sqrt{3}m^2+2m-\sqrt{3}=0$

$b^2-fac \rightarrow \frac{-2 \pm \sqrt{4+12}}{2\sqrt{3}} = \frac{-2 \pm 4}{2\sqrt{3}}$

$\left| \frac{-2-1}{\sqrt{3}} \right| = \left| \frac{-3}{\sqrt{3}} \right| = \sqrt{3} \checkmark$

$\frac{1}{\sqrt{3}} > \frac{-1 \pm 2}{\sqrt{3}}$

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$A(1, 9)$

$H(5, 11)$ $B(2, 3)$

$\rightarrow m_{BC} = \frac{11-3}{5-2} = \frac{8}{3} = 2 \rightarrow y=2x-3$

$d_{AH} = \frac{|9-2+3|}{\sqrt{2^2+1^2}} = \frac{10}{\sqrt{5}} = 2\sqrt{5} \checkmark$

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A H C

$y = -2x+19$

$y = \frac{2x-19}{2}$

$y = \frac{2x+19}{4}$

$4y-2x-19=0$

$\Rightarrow -4x+14=2x-19 \rightarrow BC \text{ و } AB \text{ موازی}$

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

$d_{BH} = \frac{|4+9-19|}{\sqrt{4^2+3^2}} = \frac{6}{5} = \frac{6}{5} \checkmark$

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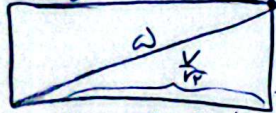
مختصات نقطه $(-\alpha, -\alpha)$

$\left\{ \begin{matrix} (-\frac{3}{4}, 0) \\ (0, -4) \end{matrix} \right\} \rightarrow m = \frac{4}{-\frac{3}{4}} = -\frac{16}{3} \rightarrow y = -\frac{16}{3}x - 4$

قطر $\times \sqrt{2} =$ طول ضلع $\rightarrow \frac{4}{3} \times \sqrt{2} = \frac{4\sqrt{2}}{3}$

نقطه برخورد مربع $(-\frac{3}{4}, 0)$ $\rightarrow \alpha = 1\alpha - 4$
 $9\alpha = 4$
 $\alpha = \frac{4}{9} = \frac{4}{9} \rightarrow (-\frac{4}{9}, -\frac{4}{9})$ طول ضلع $\rightarrow \sqrt{(-\frac{4}{9}-0)^2} = \sqrt{(-\frac{4}{9})^2} = \frac{4}{9}$

$y = x + 1 \rightarrow y = ax + 1 \rightarrow m = a$

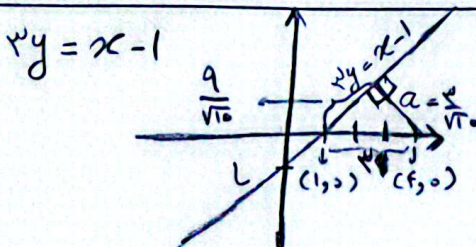


$\rightarrow a = \frac{1}{a} \Rightarrow a = \pm 1$

چون تنها جایی که از این معادله مدتی کنده است $a=1$ است پس $\boxed{a=1}$

$y = \frac{x+a-1}{a} \rightarrow m = \frac{1}{a}$
 $\rightarrow d = \frac{|c-c'|}{\sqrt{a^2+b^2}} = \frac{1}{\sqrt{2}}$
 $\hookrightarrow y = x$

طبق $2d = \frac{1}{\sqrt{2}} + x^2 \rightarrow x^2 = \frac{49}{2} \Rightarrow \frac{V}{\sqrt{2}} = x \Rightarrow S = \frac{1}{\sqrt{2}} \times \frac{V}{\sqrt{2}} = \boxed{\frac{V}{2}}$ ✓



ناموس $\frac{|-1-1|}{\sqrt{1+1}} = \frac{2}{\sqrt{2}}$

طبق $q = \frac{9}{10} + x^2 \rightarrow x^2 = \frac{11}{10} \Rightarrow x = \frac{9}{\sqrt{10}}$

$S = \frac{1}{\sqrt{2}} \times \frac{3}{\sqrt{10}} \times \frac{9}{\sqrt{10}} = \frac{27}{20} = \frac{13d}{10} = \boxed{1,3d}$ ✓

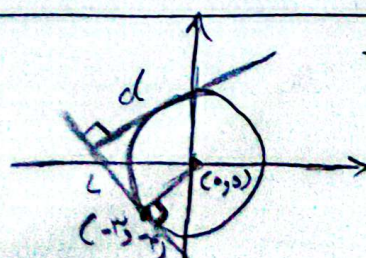
$(-\frac{1}{3}, b) (-\frac{1}{3}, a) \rightarrow m = \frac{b-a}{-\frac{1}{3}+\frac{1}{3}} = \frac{b-a}{0} = \text{undefined} \rightarrow b-a = \frac{\sqrt{3}}{4}$

$(-\frac{1}{3}, b) (-\frac{1}{3}, a)$



$d = \sqrt{(-\frac{1}{3}+\frac{1}{3})^2 + (\frac{\sqrt{3}}{4})^2} = \sqrt{\frac{1}{36} + \frac{3}{16}} = \sqrt{\frac{4}{36} + \frac{9}{16}} = \sqrt{\frac{16}{36} + \frac{27}{16}} = \sqrt{\frac{43}{36}} = \frac{\sqrt{43}}{6} = \boxed{\frac{1}{3}}$

قطر $\frac{\sqrt{2}}{3}$



$\rightarrow (-3, -4) \Rightarrow (0, 0) \rightarrow m_{\text{شعاع}} = \frac{4}{3} = \frac{4}{3}$

$\rightarrow m_L = -\frac{3}{4} \rightarrow y = -\frac{3}{4}x + \frac{13}{4}$

$\rightarrow m_d = \frac{4}{3}x + b \Rightarrow \frac{4}{3}x + \frac{13}{3}$

$\frac{4}{3}x - \frac{13}{3} = \frac{4}{3}x + \frac{13}{3}$
 $\rightarrow -9x - 13 = 13x + 13$

$d_{\text{شعاع}} = \sqrt{(-3)^2 + (-4)^2} = \sqrt{25} = 5$
 $d = \frac{|c|}{\sqrt{1+\frac{9}{16}}} = d \rightarrow c = \sqrt{\frac{25}{16}} = d \times \frac{4}{3} = \frac{20}{3}$

$xy = (-vx-1) \Rightarrow \boxed{K} =$

$\boxed{y = -1}$

$\hookrightarrow vx = -1/d \hookrightarrow \boxed{x = -v}$