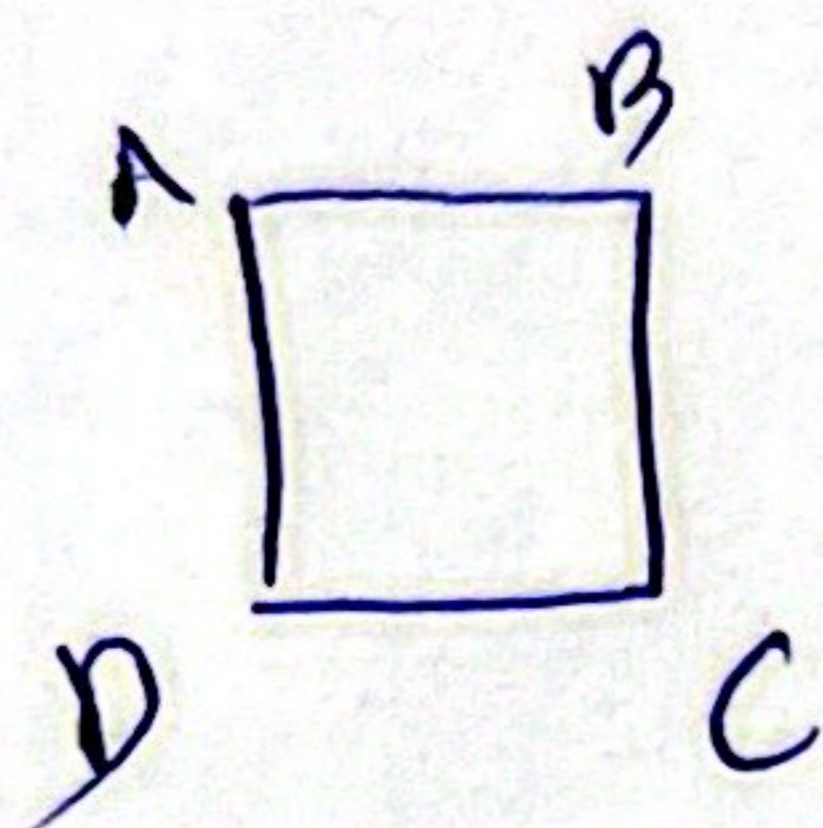


کار آفرین

نام و نام خانوادگی آریه صبر پاسخنامه تشریحی تکلیف شماره ۱۷... کلاس یازدهم

$A(-2, k) \rightarrow a = \frac{m-k}{4} = -\frac{1}{2} \rightarrow m-k = -2$
 $B(5, m)$



$|AB| = \sqrt{\frac{(m-k)^2}{9} + \frac{16}{9}} = \sqrt{5}$
 $S_{\square} = (\sqrt{5})^2 = 5$ ✓

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$x_A + x_C = x_B + x_D \rightarrow -1 + k = 5 - 1 - k$
 $y_A + y_C = y_B + y_D \rightarrow 2 + 3 = 5 + 1$
 $2 + 3 = 5 + 1$ ✓

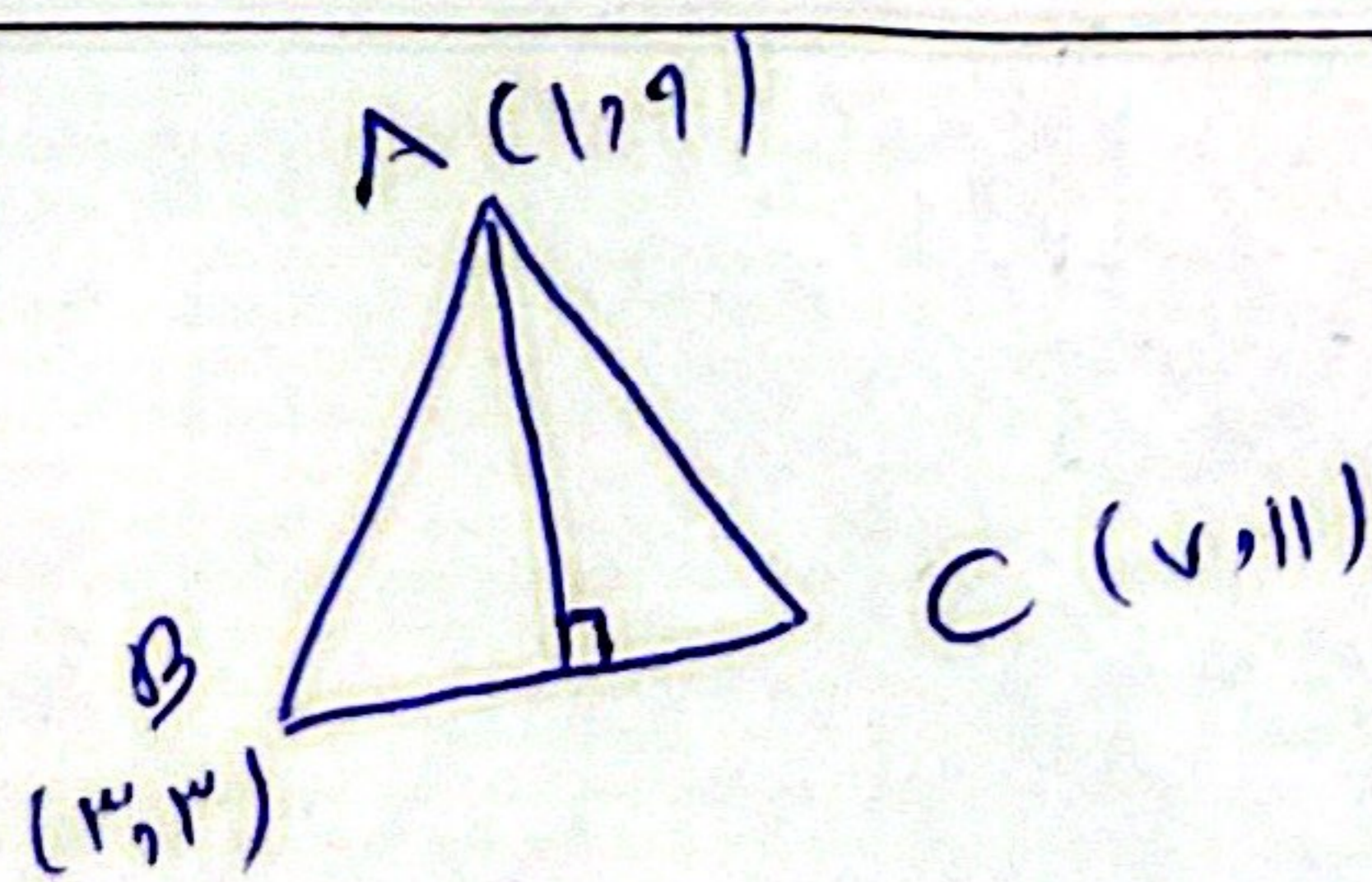
$x_A + x_D = x_B + x_C \rightarrow -1 - k = 5 + k \rightarrow k = -3$
 $y_A + y_D = y_B + y_C \rightarrow 2 + 3 = 5 + 1$ ✓

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$4mx + (m^2 - 1)y = 3$

$a = \tan \theta = \sqrt{3} \rightarrow \frac{-4m}{m^2 - 1} = \sqrt{3}$
 $\sqrt{3}m^2 - \sqrt{3} = -4m$
 $\sqrt{3}m^2 + 4m - \sqrt{3} = 0$
 $m^2 + 4m - 3 = 0 \rightarrow (m+3)(m-1) = 0$
 $m = -3 \rightarrow \frac{-\sqrt{3}}{\sqrt{3}}$
 $m = 1 \rightarrow \frac{1}{\sqrt{3}}$

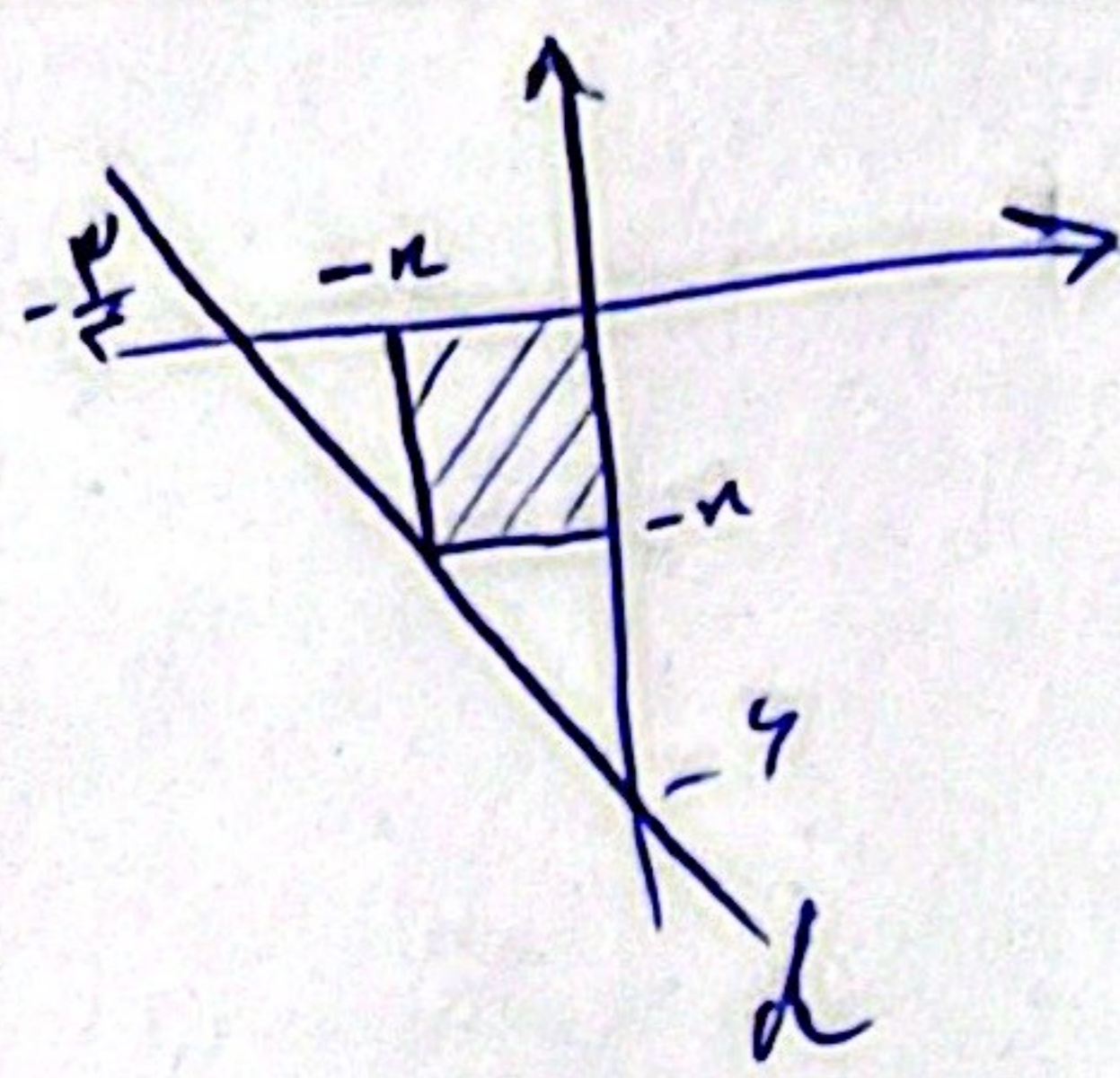
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$BC = 2\sqrt{5} = 2 \rightarrow 2\sqrt{5} = 2 \rightarrow \frac{10\sqrt{5}}{5} = 2\sqrt{5}$ ✓

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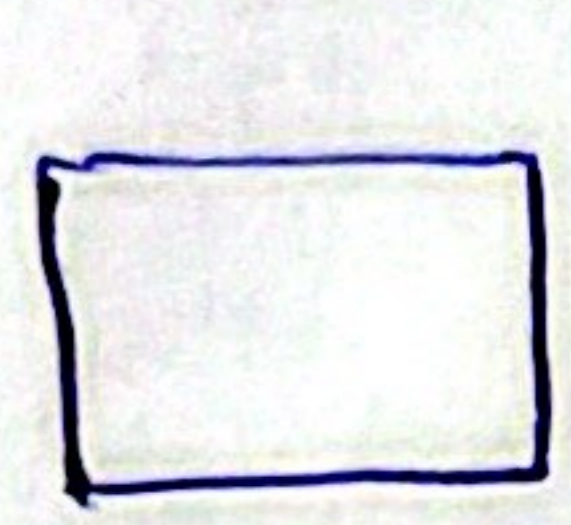
$$d_{\text{از}} = \frac{7}{\sqrt{1^2 + 1^2}} \rightarrow -x - y = 7$$

$$+x - y = -7$$

$$\rightarrow x = 0 \rightarrow y = -7$$

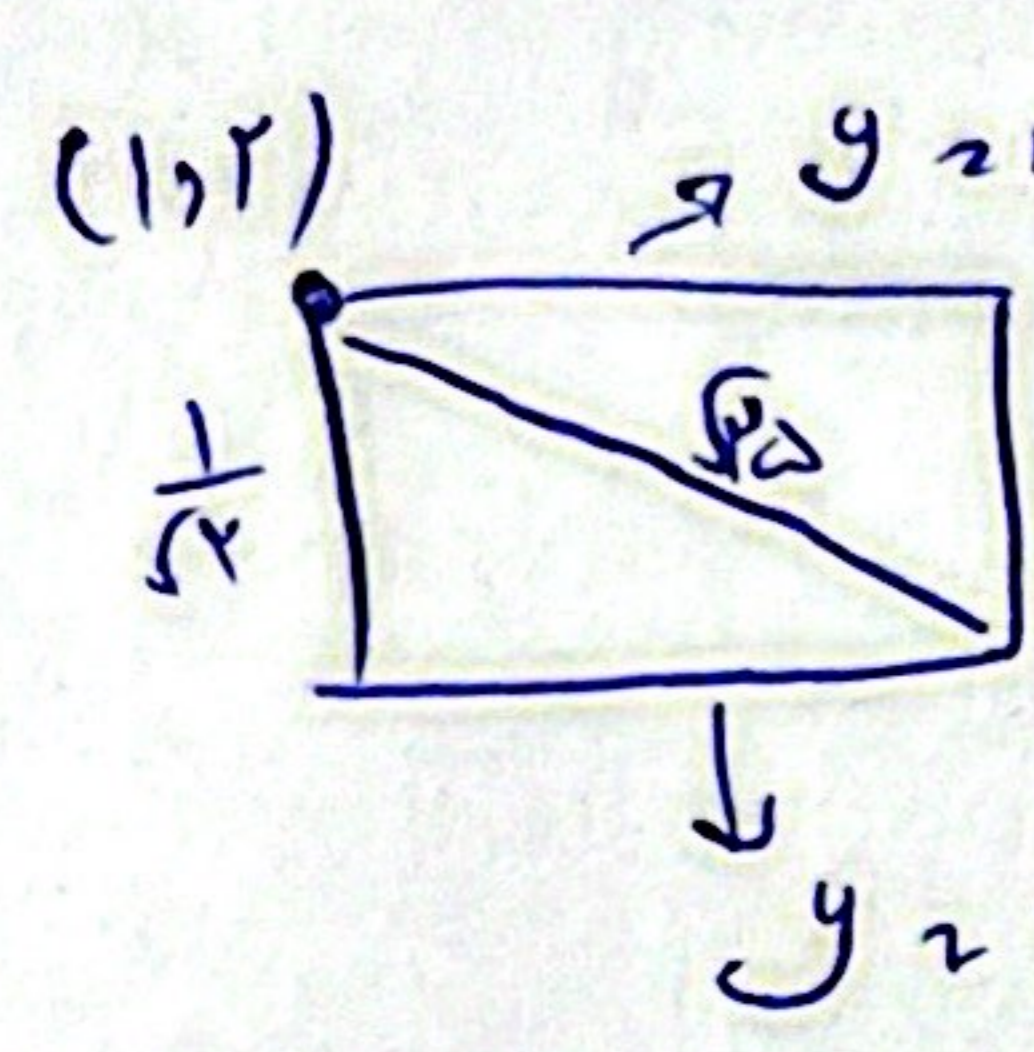
قطر مربع $\rightarrow \frac{\sqrt{2}}{2}$ ✓

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$$\begin{cases} ay - x = a - 1 \\ y - ax = 1 \end{cases} \xrightarrow{\text{ضرب}} \frac{1}{a} = a \rightarrow a^2 = 1$$

$a = 1$ ✓
 $a = -1$ ✓



(۱) $y = x + 1 \rightarrow y - x = 1$ خط

مساحت $= \frac{1}{\sqrt{2}}$

$d = \frac{1}{\sqrt{2}}$

$\rightarrow d = \frac{1}{\sqrt{2}}$

$\rightarrow d = \frac{1}{\sqrt{2}}$

مساحت $= 2 \times \frac{1}{\sqrt{2}} = \frac{2}{\sqrt{2}} = \sqrt{2}$ ✓

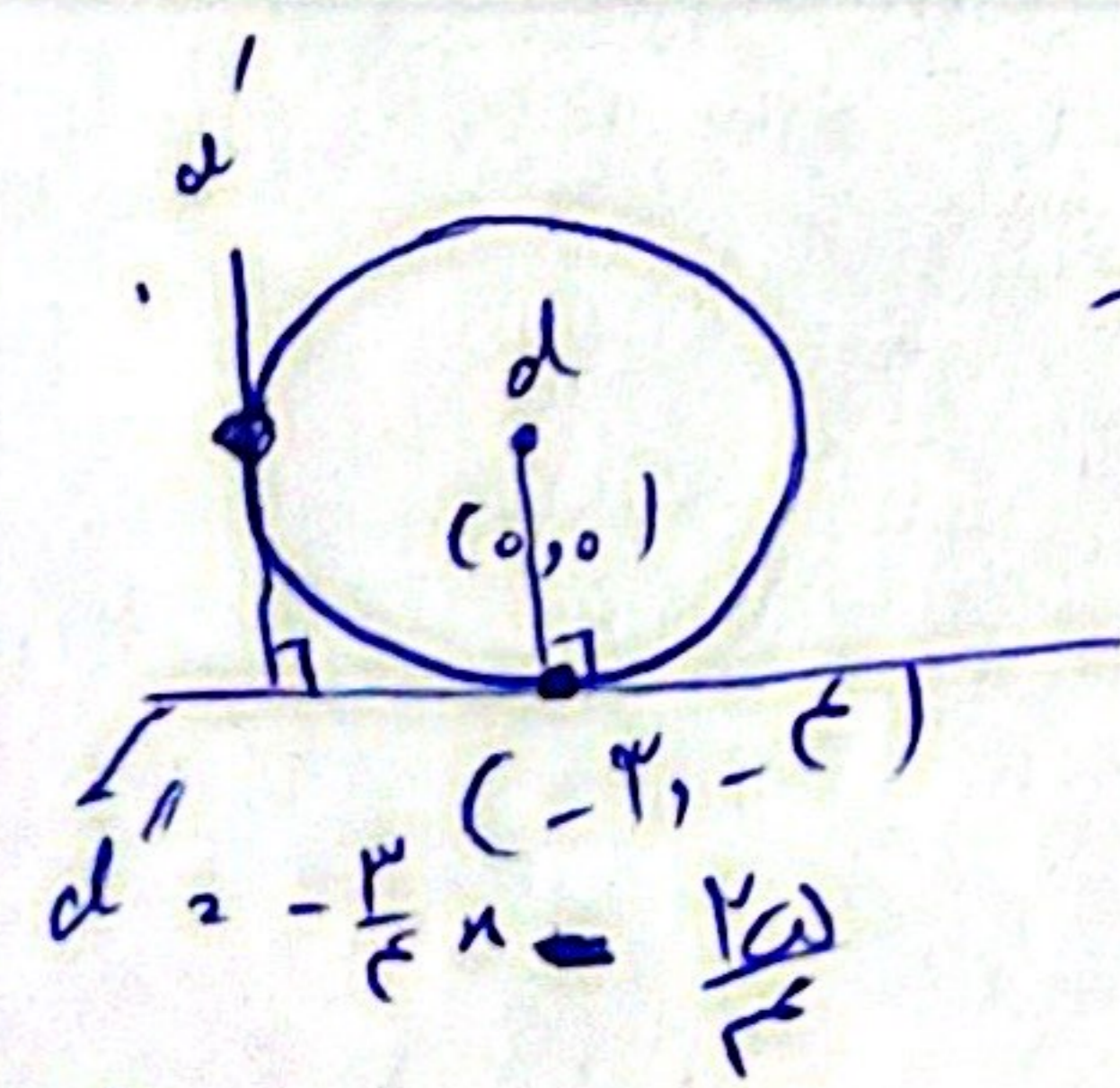
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$$a_{\Delta} = \sqrt{2} \rightarrow \frac{b-a}{\frac{1}{2}} = \sqrt{2} \rightarrow b-a = \frac{\sqrt{2}}{2}$$

مساحت مربع $= \sqrt{\left(\frac{b-a}{2}\right)^2 + \left(\frac{1}{2}\right)^2} = \frac{\sqrt{2}}{2} = \frac{1}{\sqrt{2}}$

قطر مربع $= \frac{\sqrt{2}}{2}$ ✓

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$d = d'$

$$\frac{r}{\sqrt{2}} = \frac{r}{\sqrt{2}} \rightarrow d' = \frac{r}{\sqrt{2}} x + b = y$$

$$\frac{r}{\sqrt{2}} x = y - d$$

$\frac{d}{d'} = \frac{|b|}{\frac{r}{\sqrt{2}}} = 2 \cdot \frac{r}{d}$

$|b| = \frac{r}{\sqrt{2}}$

$b = \frac{r}{\sqrt{2}}$

$b = -\frac{r}{\sqrt{2}}$

تقاطع d' و d $\rightarrow \frac{r}{\sqrt{2}} + \frac{r}{\sqrt{2}} x = -\frac{r}{\sqrt{2}} x - \frac{r}{\sqrt{2}}$

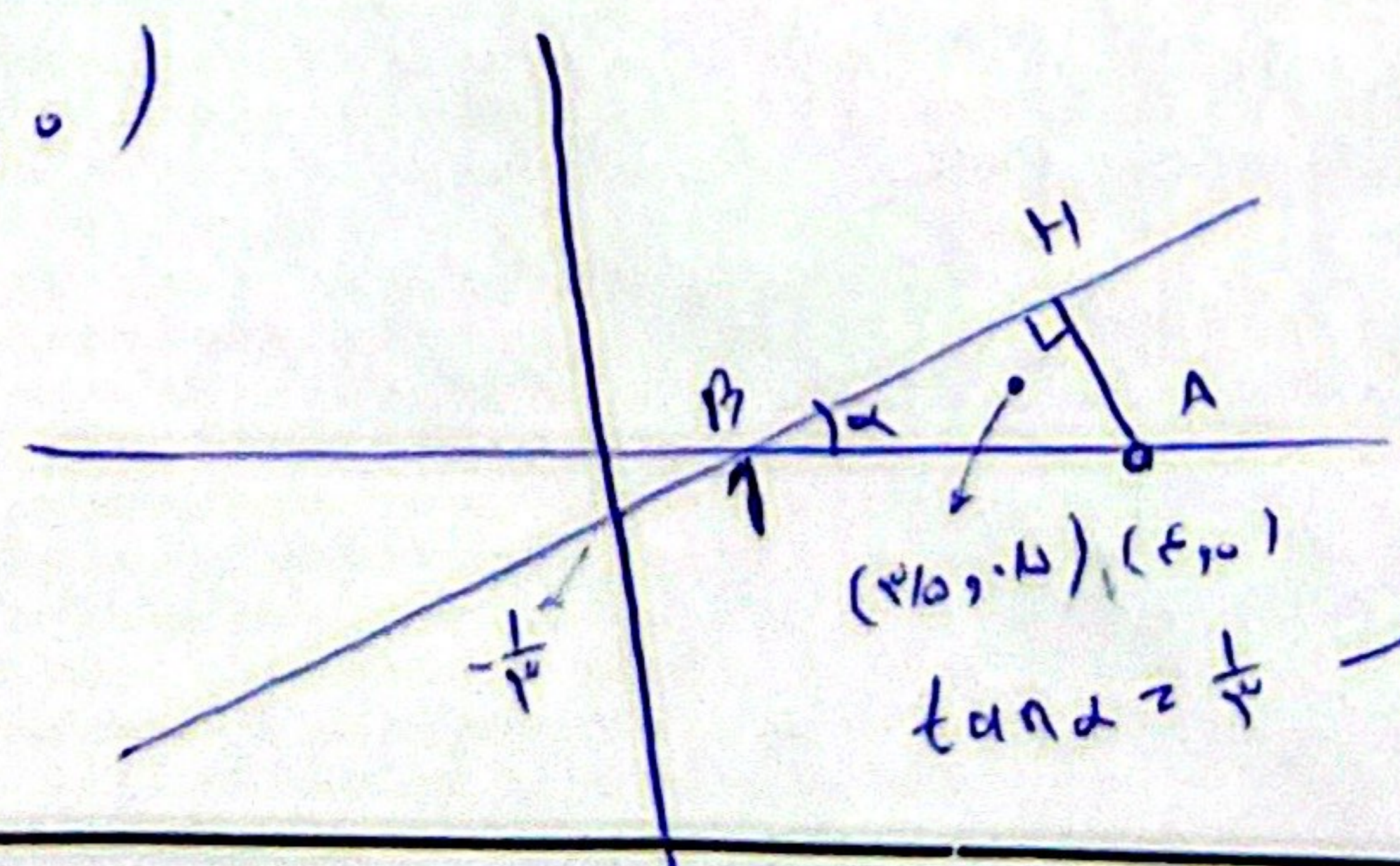
~~.....~~

$$\frac{r}{\sqrt{2}} x = \frac{-100 - \sqrt{2}}{\sqrt{2}} \Rightarrow x = -\sqrt{2}$$

$xy = \sqrt{2}$ ✓
 $y = -1$ ✓

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$A(5,0)$



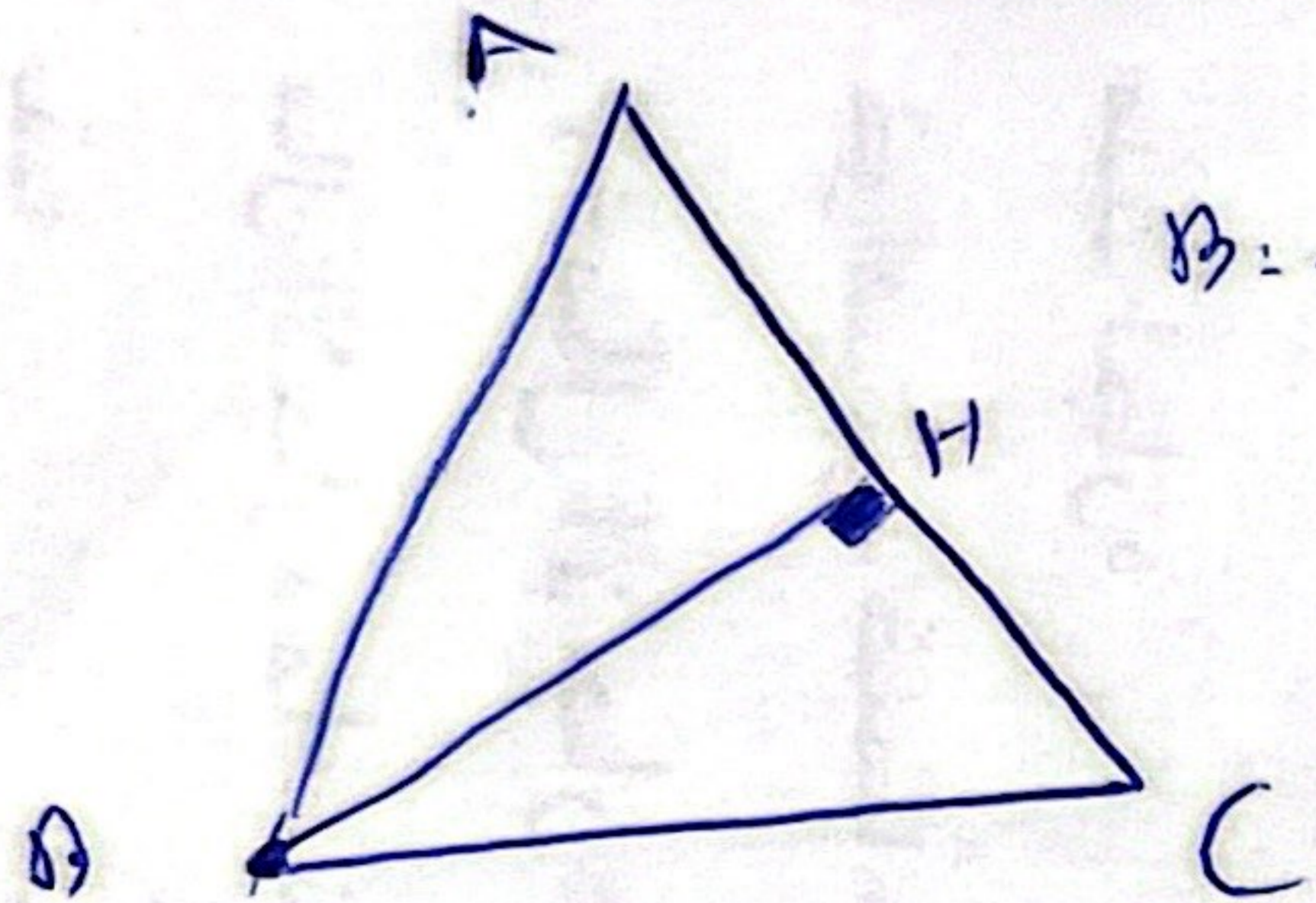
$AH = \frac{r}{\sqrt{2}}$

$\frac{AH}{BH} = \frac{1}{\sqrt{2}} \rightarrow BH = \frac{9}{\sqrt{2}}$

$\rightarrow \text{مساحت} = \frac{r}{\sqrt{2}} \times \frac{9}{\sqrt{2}} \times \frac{1}{2} = \frac{9r}{4}$

$s = \frac{1}{4} \sqrt{2}$ ✓

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B: $\xrightarrow{AB \perp BC}$
BC

$$\left. \begin{aligned} y + 2x &= 4 \\ 2y - 5x &= -19 \end{aligned} \right\}$$

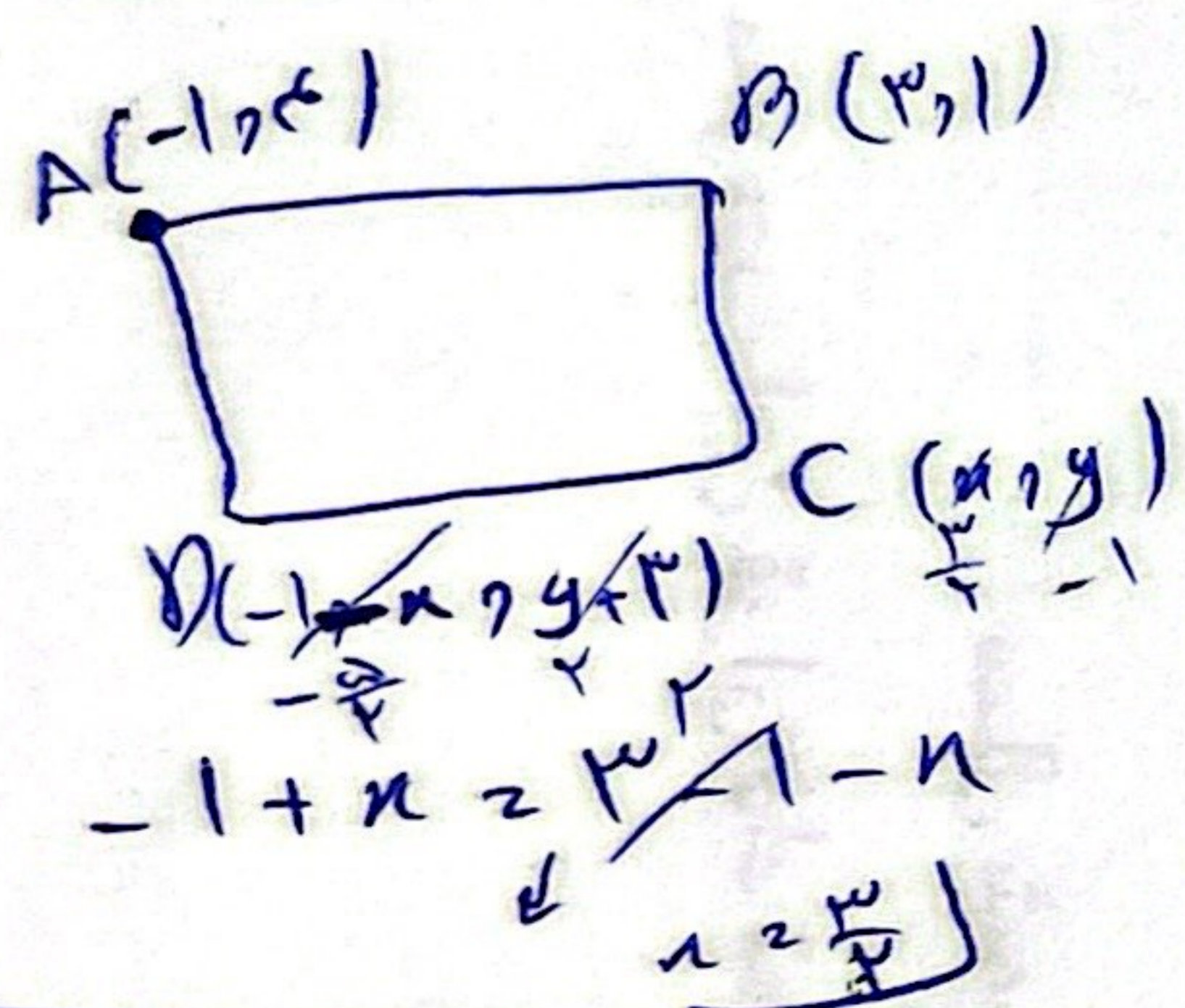
$$\begin{aligned} 1x - 4x - 5x &= -19 \\ -11x &= -19 \\ x &= \frac{19}{11} \\ y &= 1 \end{aligned}$$

(1)



$$\frac{|y - 2x - 4|}{\sqrt{5}} = \frac{|2 - 4 - 4|}{\sqrt{5}} = \frac{6}{\sqrt{5}}$$

B(19/11, 1)



AB \perp BC $\rightarrow m_{AB} \cdot m_{BC} = -1$

$$\begin{aligned} \frac{2}{3} \times m_{BC} &= -1 \\ m_{BC} &= -\frac{3}{2} \\ \frac{y-1}{x-2} &= -\frac{3}{2} \end{aligned}$$

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

$$\begin{aligned} |AB| &= \sqrt{9+4} = 5 \\ |BC| &= \sqrt{\frac{9}{4}+9} = \frac{5}{2} \end{aligned}$$

$$P = \frac{1}{2} (|AB| + |BC|) = \frac{1}{2} (5 + \frac{5}{2}) = \frac{15}{4}$$

(1)

(1)