$k: y = ax + b$ $\quad k \parallel l: y = ax + b_1$

$k: y = a(x-p)+q$ $\quad k \perp l: y = -\frac{1}{a}x + b_1$

$k: Ax + By + C = 0$ $\quad k \parallel l: Ax + By + C_1 = 0$

$k \perp l: -Bx + Ay + C_2 = 0$

$K \perp \vec{w} = [A, B]$

$k \perp l \Leftrightarrow A_k \cdot A_l + B_k \cdot B_l = 0$

sty 15-07:33

$k: 3x + 4y + 5 = 0$

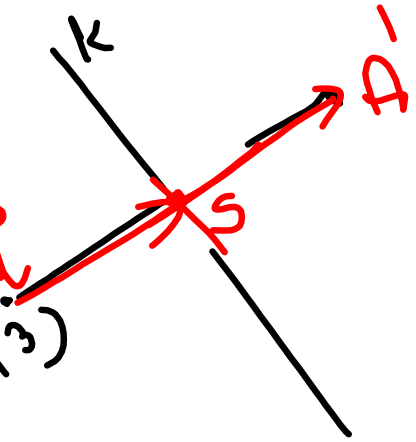
$-4x + 3y + C = 0$

$l: l \perp k \wedge A \in l$

$S: l \cap k$ $\quad S - S_A$

$\vec{SA'} = \vec{AS} \Rightarrow A' = \ldots$

$S = \frac{A + A'}{2}$ $\quad A' = 2 \cdot S - A$



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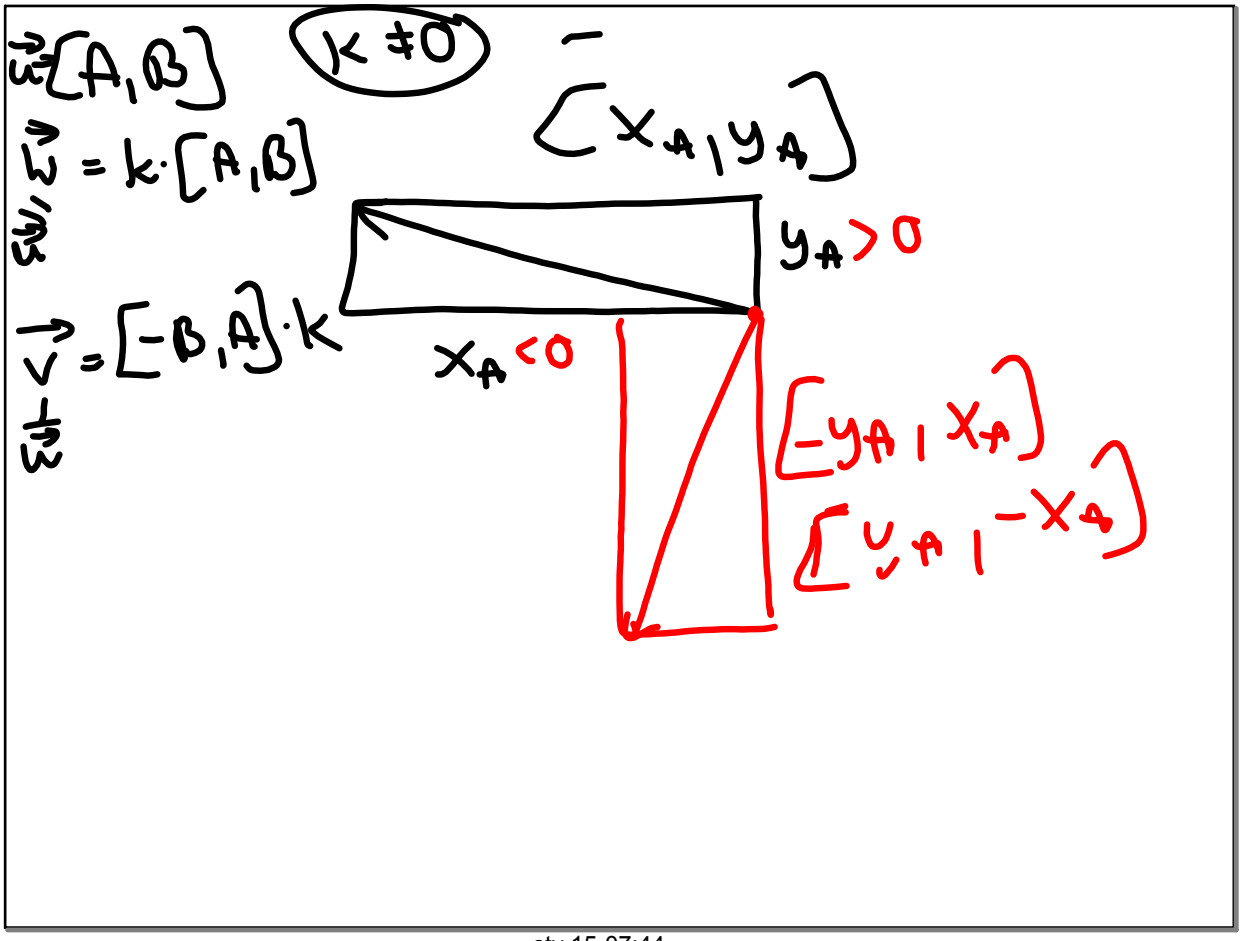

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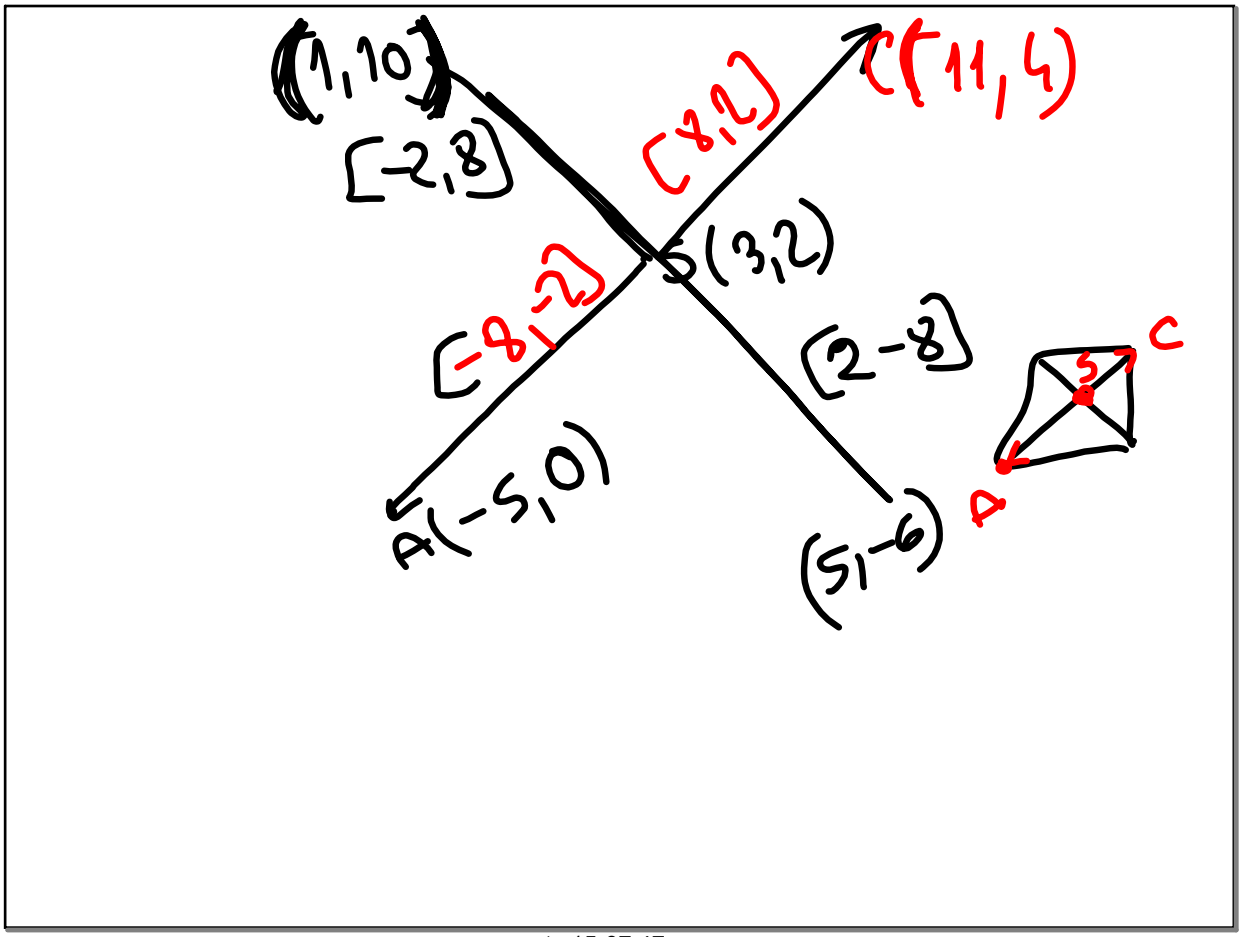

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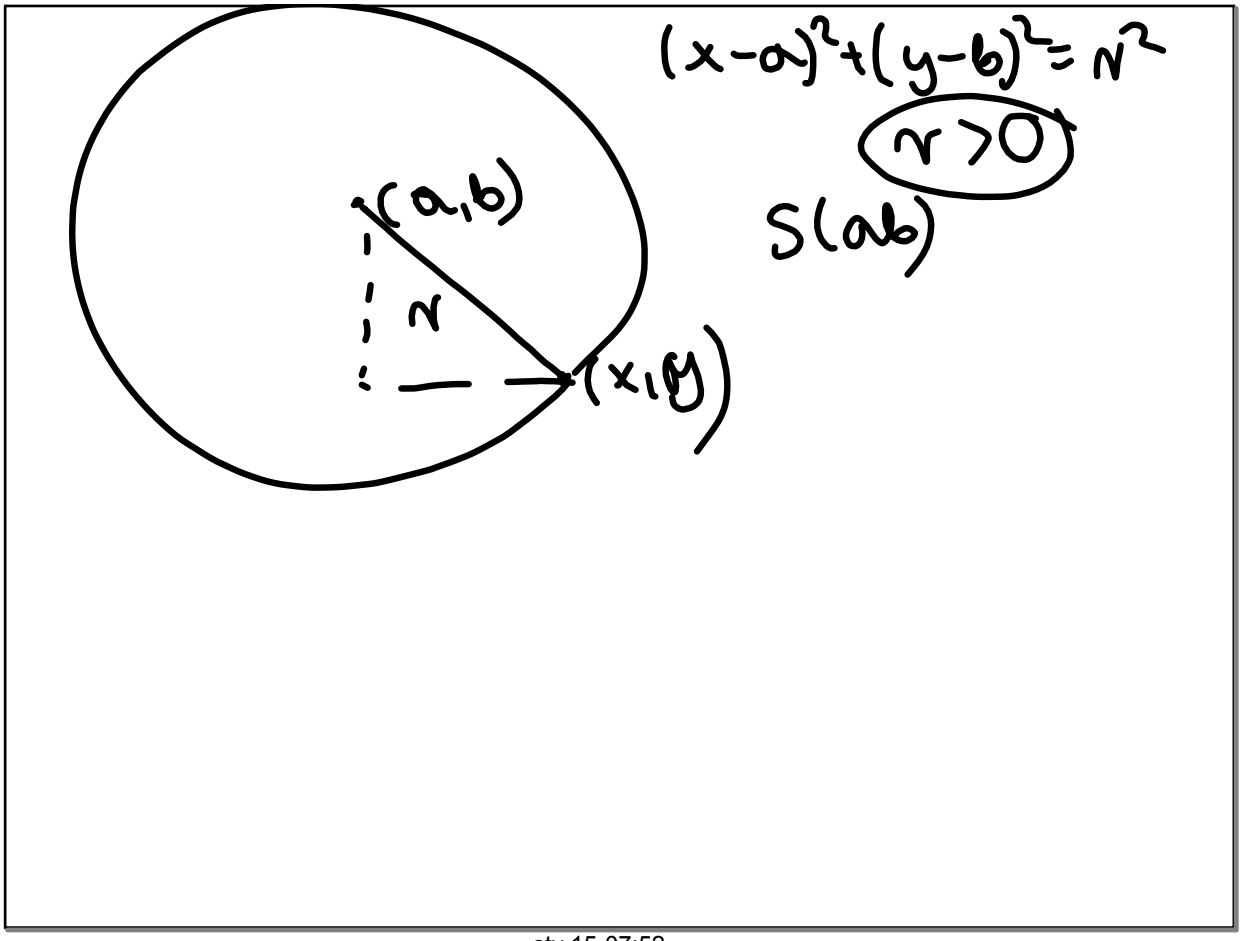

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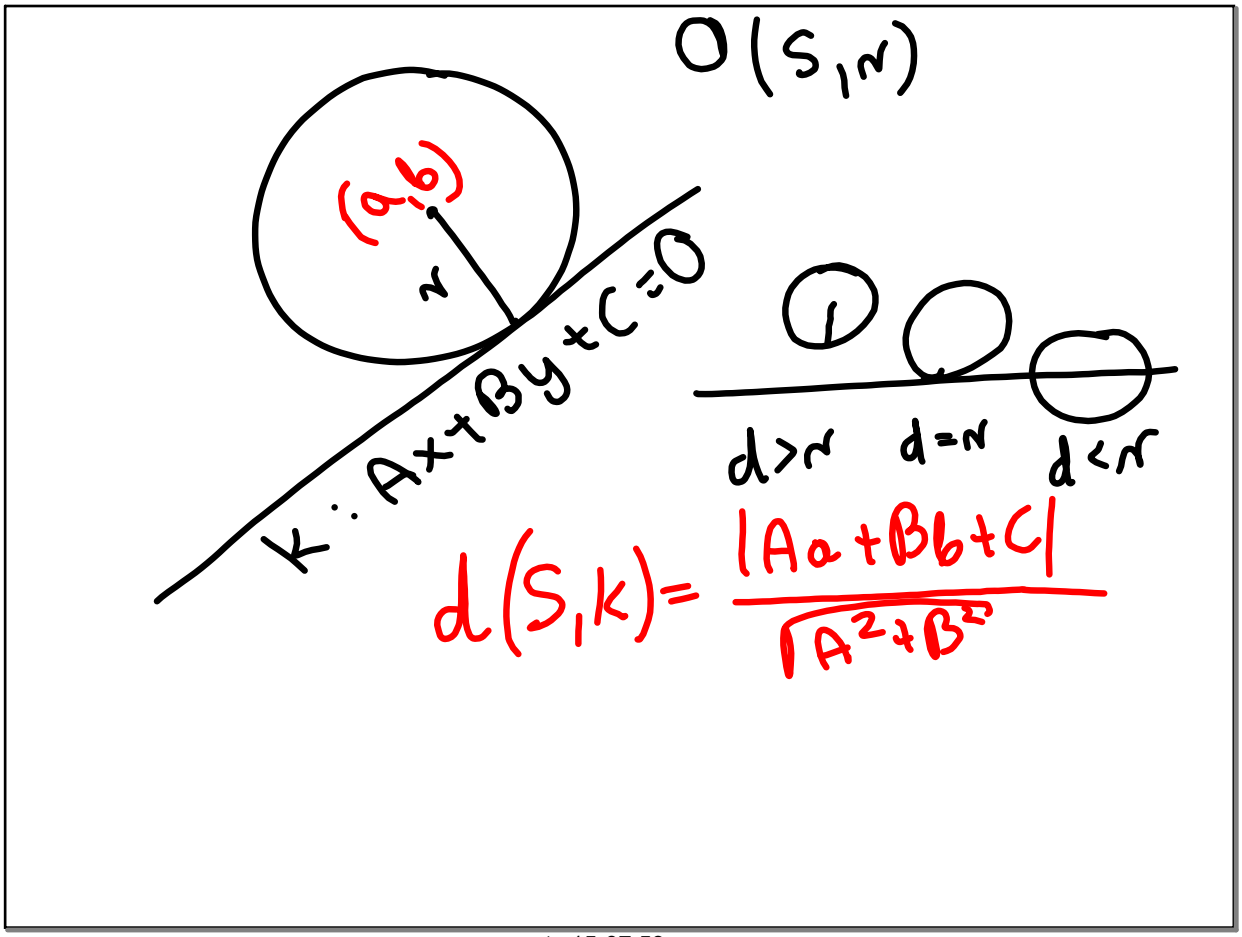

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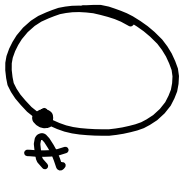
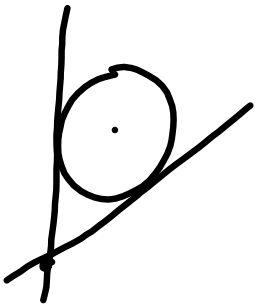
$A \in O(S, r)$

$(x-a)^2+(y-b)^2=r^2$



$k: (x_A-a)(x-a)+(y_A-b)(y-b)=r^2$



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$A(-1,3) \quad (x-2)^2+(y-4)^2=5$

$A=a$

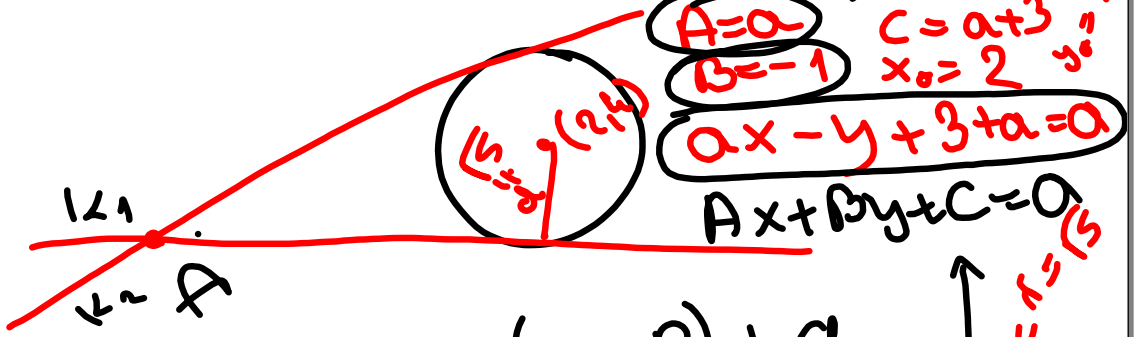
$B=-1$

$C=a+3$

$x_0=2$

$ax-y+3+a=0$

$Ax+By+C=0$



$k: y=a(x-p)+q$

$k: y=a(x+1)+3$

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$$\sqrt{5} = \frac{|2a-4+a+3|}{\sqrt{a^2+1}}$$

$$\overset{\geq 0}{|3a-1|} = \overset{\geq 0}{\sqrt{5(a^2+1)}} \quad /()^2$$

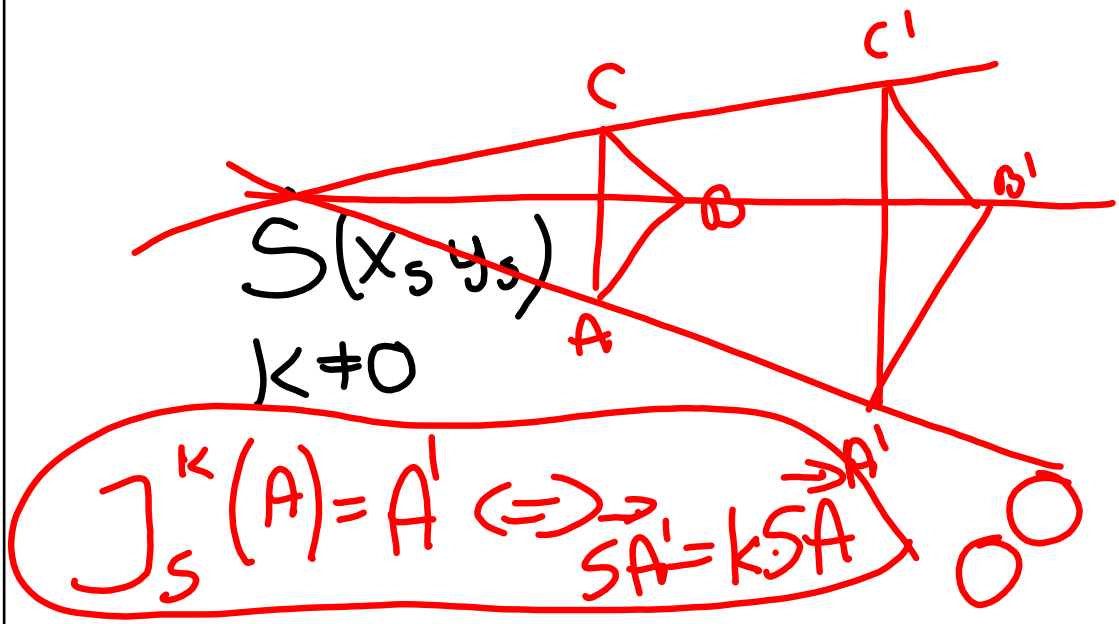
$$9a^2-6a+1 = 5a^2+5$$

$$4a^2-6a-4=0$$

$$2a^2-3a-2=0$$

$$2(a-2)(a+\tfrac{1}{2})=0$$

sty 15-08:02



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$\vec{AB} = B - A =$

$\vec{OB} = B$

$\vec{AB} = \vec{OB} - \vec{OA} = \vec{OB} + \vec{AO}$

$\vec{AO} + \vec{OB} = \vec{AB}$

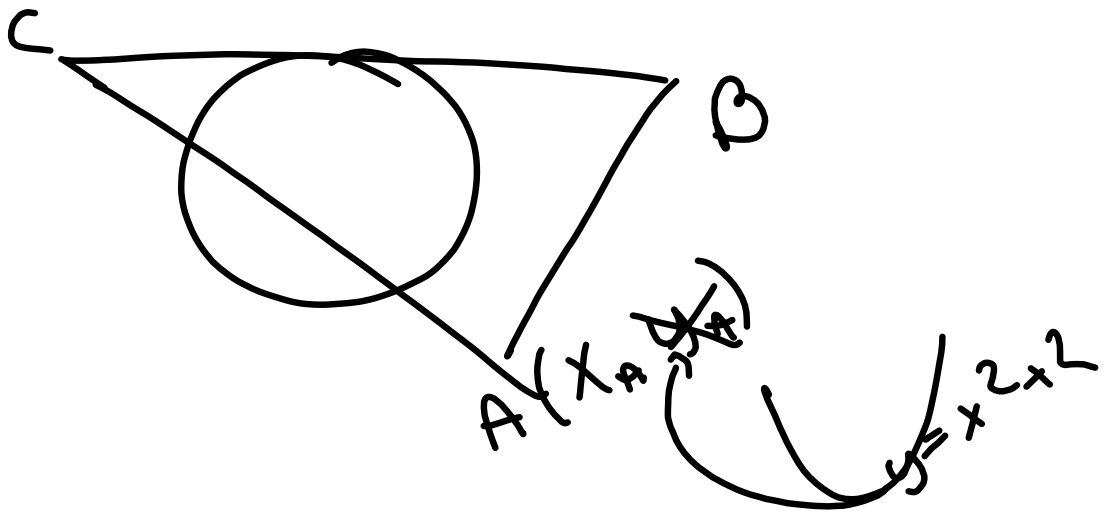
(a,b)

(a,b)

$ab \in \mathbb{R} \times \mathbb{R}$

$(a,b)\cdot(c,d) = ($, $)$

sty 15-08:13



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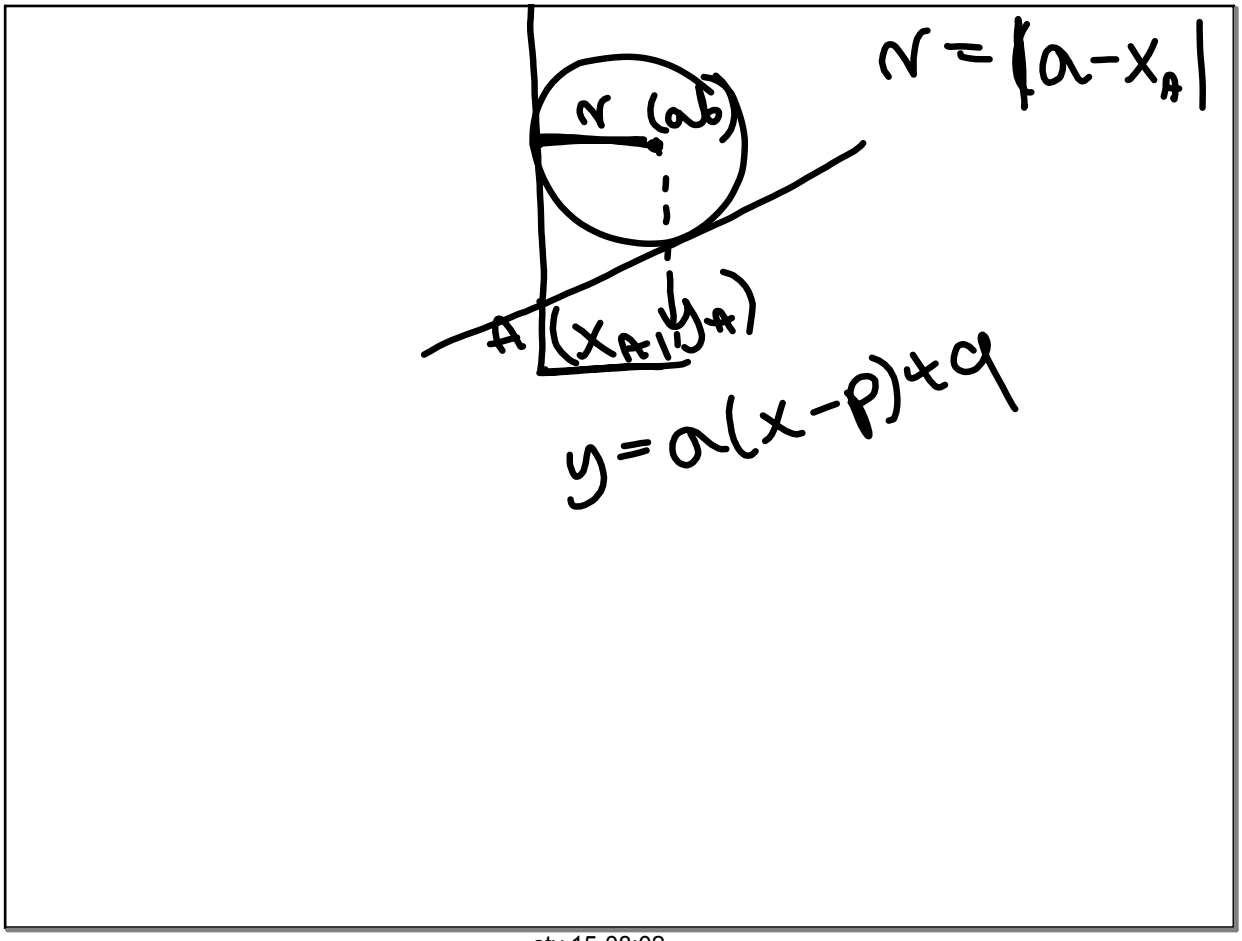

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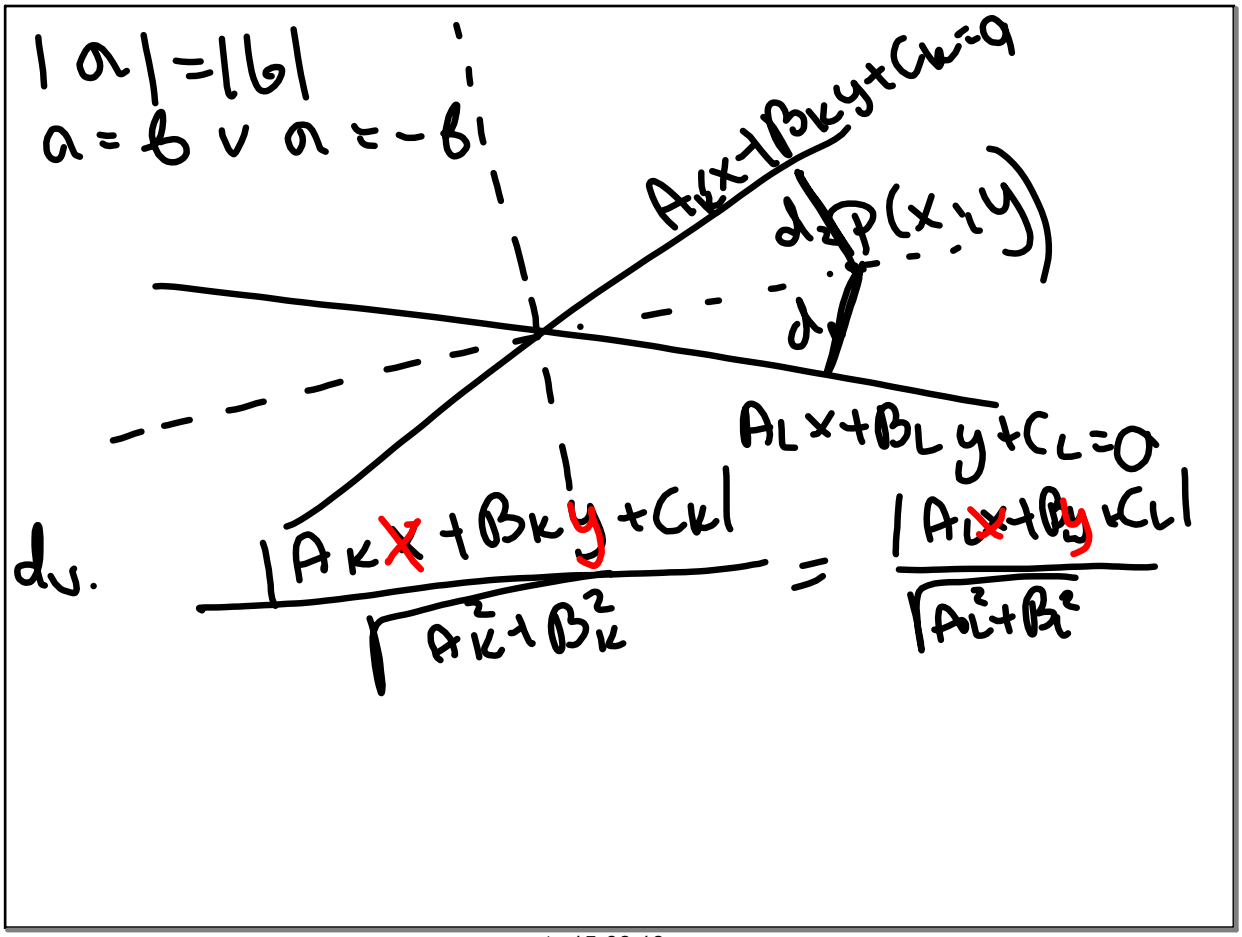

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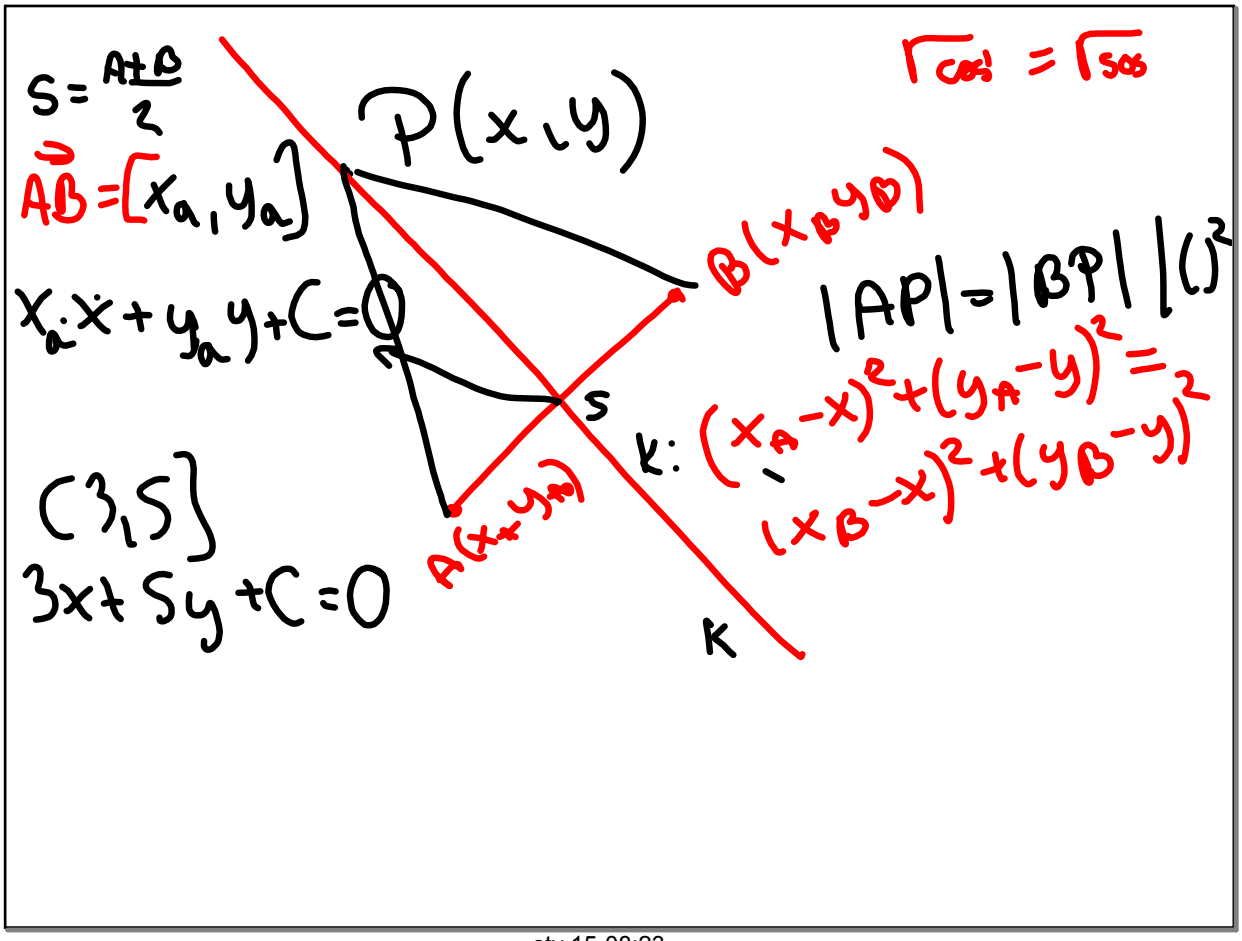

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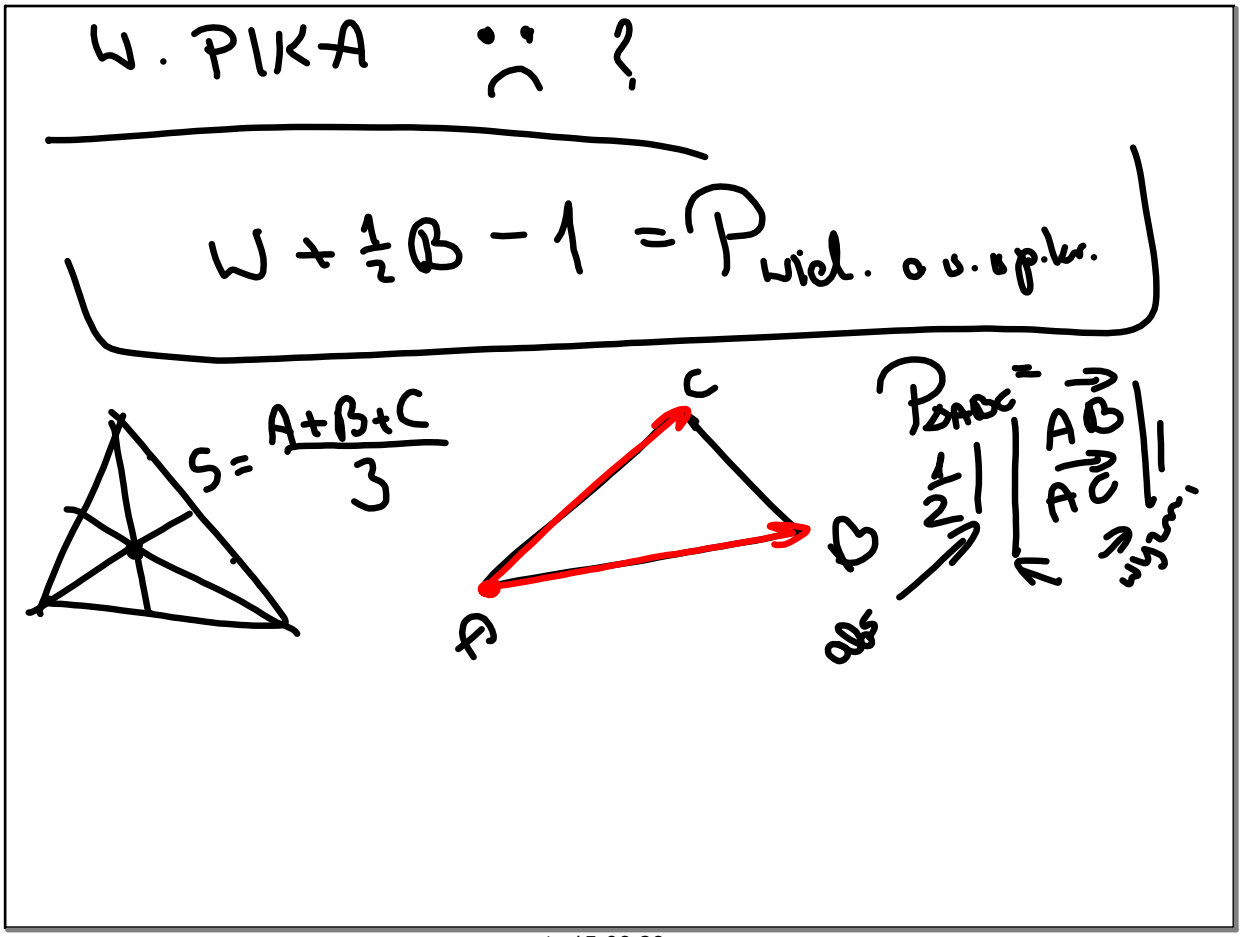

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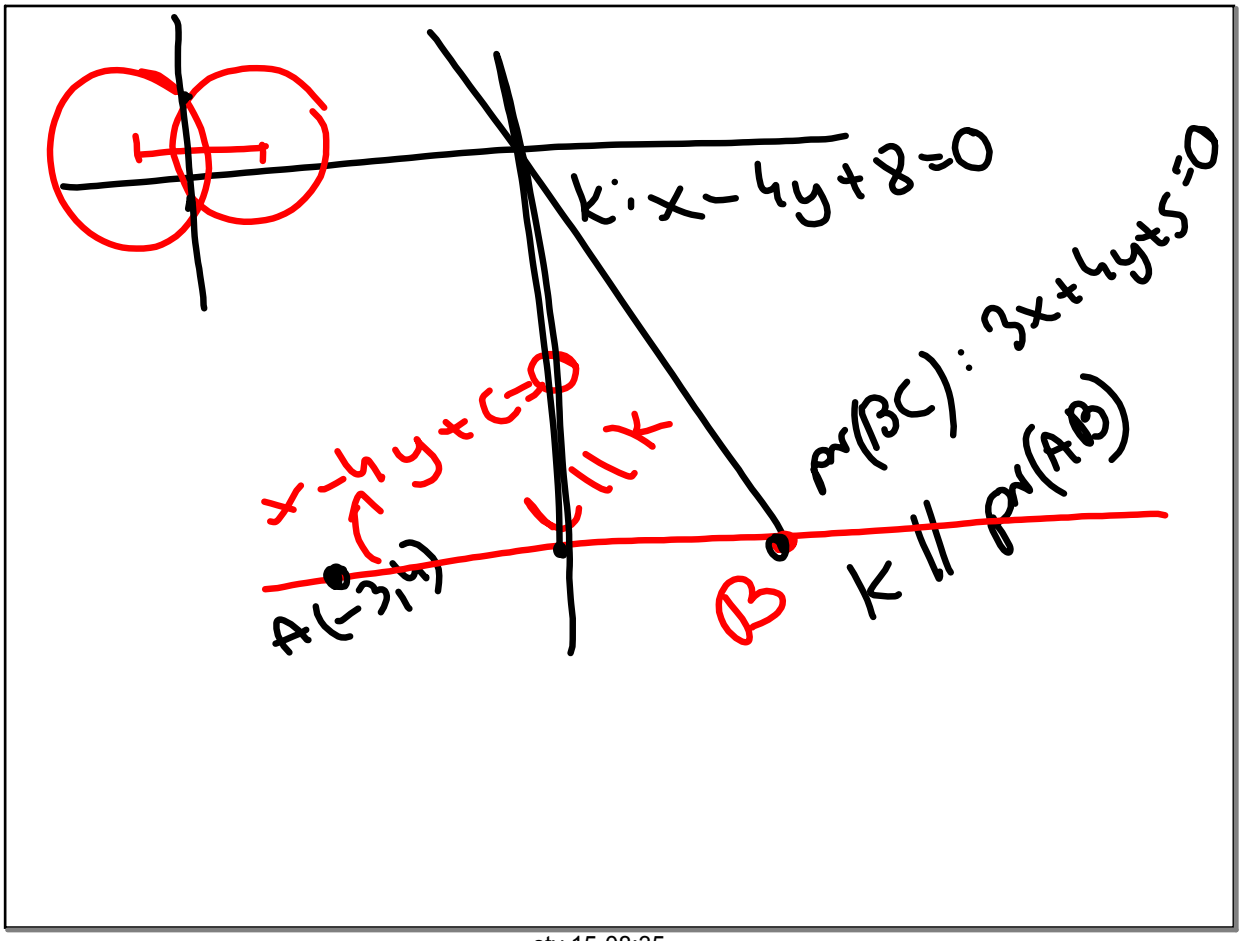

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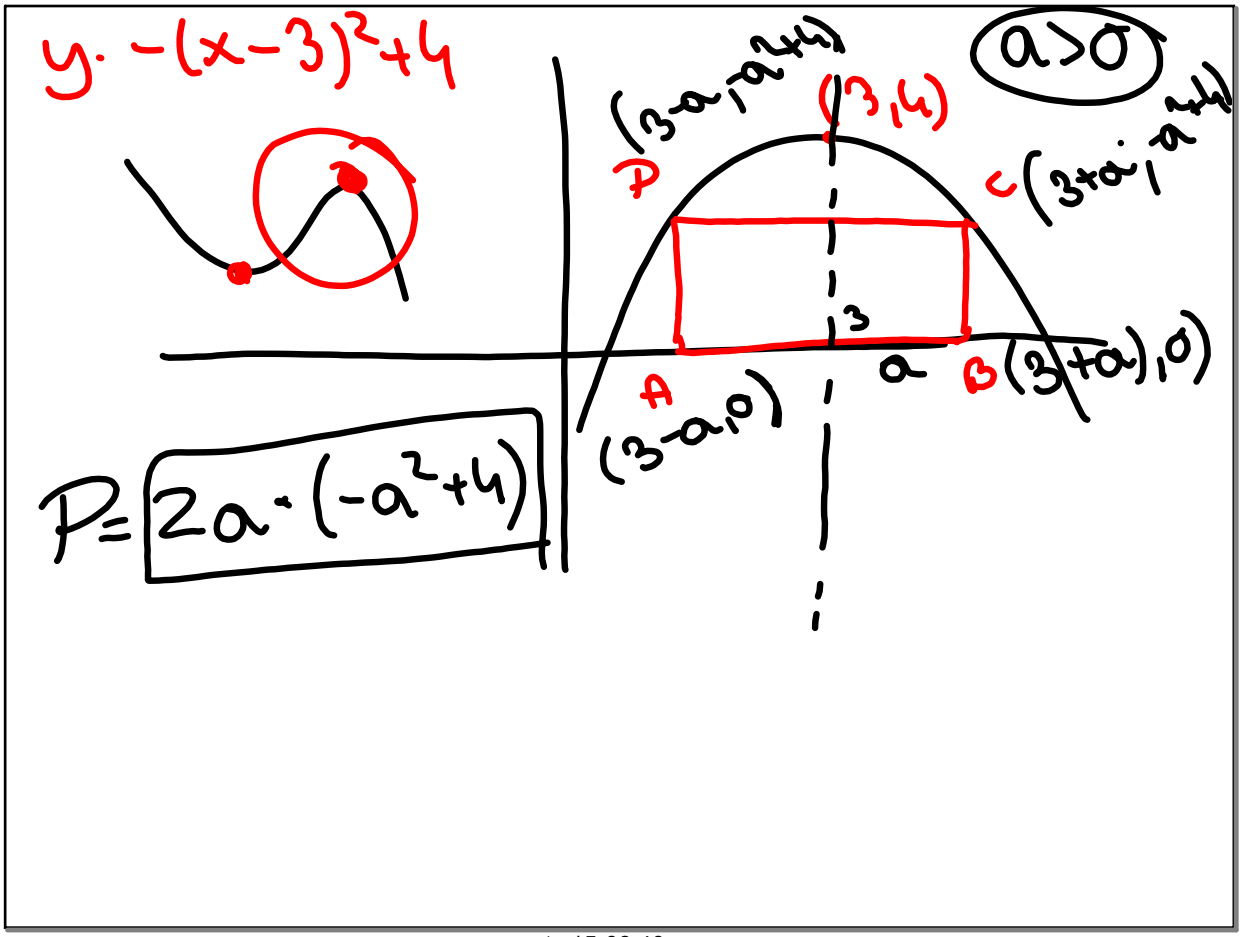

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