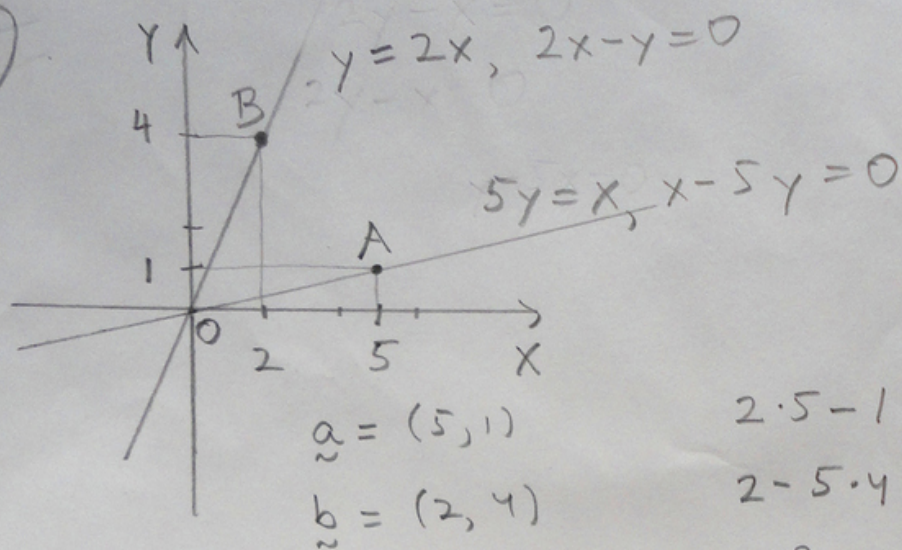


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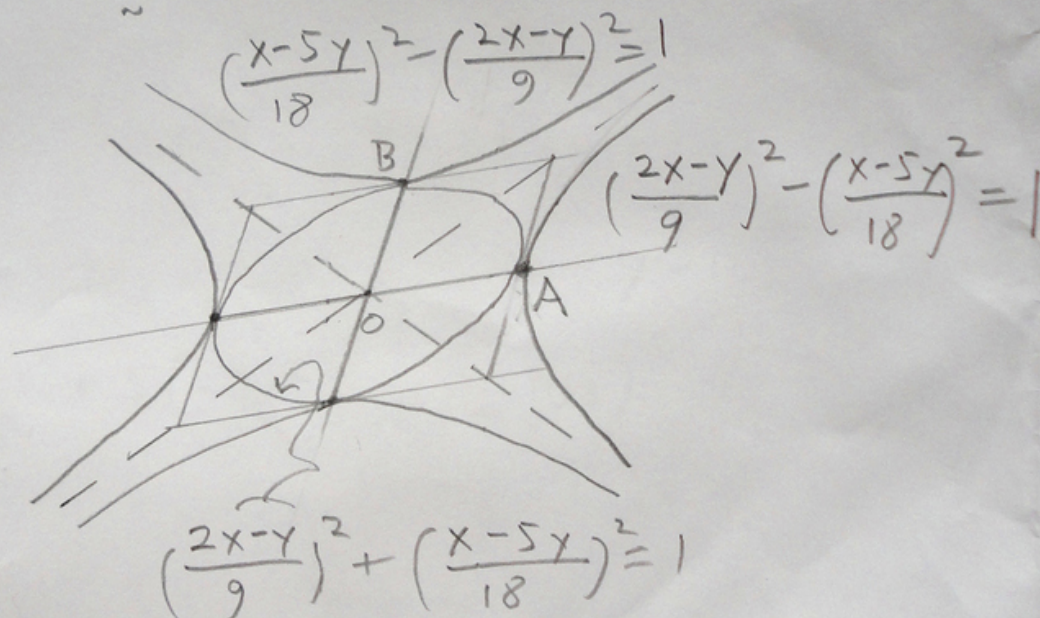
①



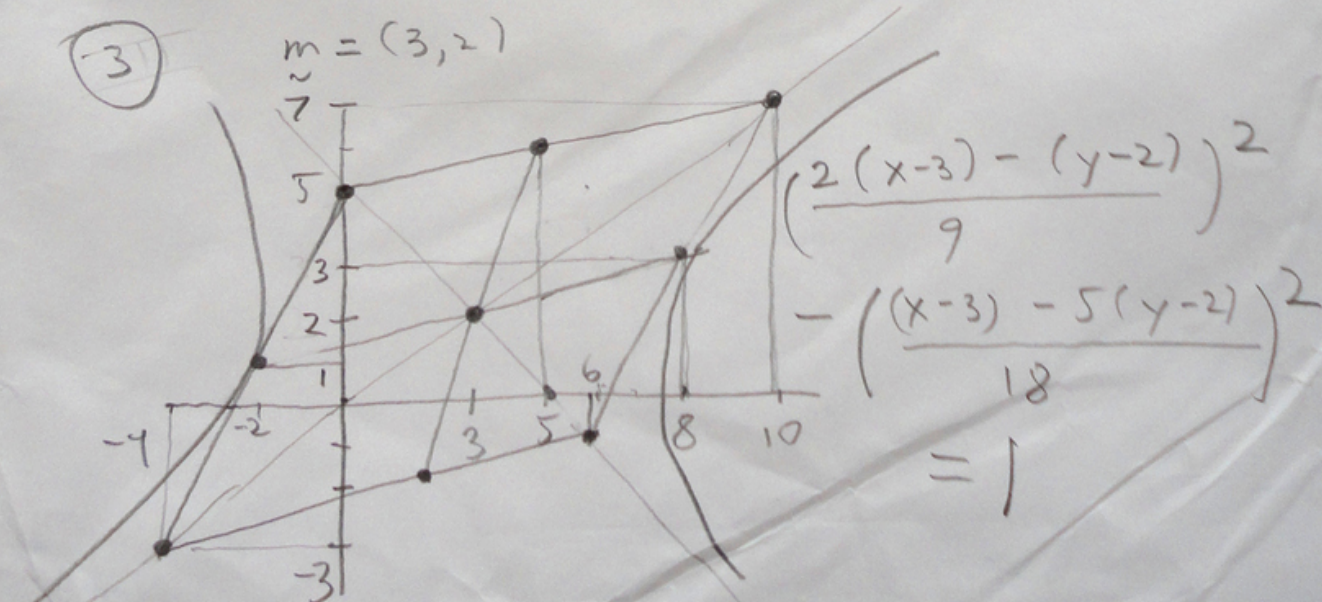
$$2 \cdot 5 - 1 = 9$$

$$2 - 5 \cdot 4 = -18$$

②



③



$$\textcircled{4} \quad 4(2(x-3) - (y-2))^2 - ((x-3) - 5(y-2))^2 = 18^2$$

$$4(2x - y - 4)^2 - (x - 5y + 7)^2 = 4 \cdot 81$$

$$4(4x^2 - 4xy + y^2 - 16x + 8y + 16)$$

$$- (x^2 - 10xy + 25y^2 + 14x - 70y + 49) = 324$$

$$15x^2 - 6xy - 21y^2 - 78x + 102y - 309 = 0$$

$$5x^2 - 2xy - 7y^2 - 26x + 34y - 103 = 0$$

$$\textcircled{5} \quad 5(5x^2 - 2xy - 26x) = (5x - y - 13)^2 - (y + 13)^2,$$

$$- (y + 13)^2 + 5(-7y^2 + 34y - 103)$$

$$= -y^2 - 26y - 169 - 35y^2 + 170y - 515$$

$$= -36y^2 + 144y - 684$$

$$= -36(y^2 - 4y) - 684$$

$$= -36(y-2)^2 + 36 \cdot 4 - 36 \cdot 19,$$

$$\text{denkle} \quad (5x - y - 13)^2 - 36(y-2)^2 = 15 \cdot 36,$$

$$\text{veya} \quad \left(\frac{5(x-3) - (y-2)}{6\sqrt{15}} \right)^2 - \left(\frac{y-2}{\sqrt{15}} \right)^2 = 1.$$

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⑤ devamı. Diyalemler:

$$5(x-3) = y-2, \quad y = 2.$$

Koşeler için:

$$\left. \begin{array}{l} y = 2 \\ \left(\frac{5(x-3) - (y-2)}{6\sqrt{15}} \right)^2 = 1 \end{array} \right\} \Rightarrow x-3 = \frac{\pm 6\sqrt{15}}{5},$$

dolayısıyla $V, V' = \left(3 \pm \frac{6\sqrt{15}}{5}, 2 \right).$

$$\left. \begin{array}{l} 5(x-3) = y-2 \\ \left(\frac{y-2}{\sqrt{15}} \right)^2 = 1 \end{array} \right\} \Rightarrow \begin{cases} y-2 = \pm \sqrt{15} \\ x-3 = \frac{\pm \sqrt{15}}{5} \end{cases}$$

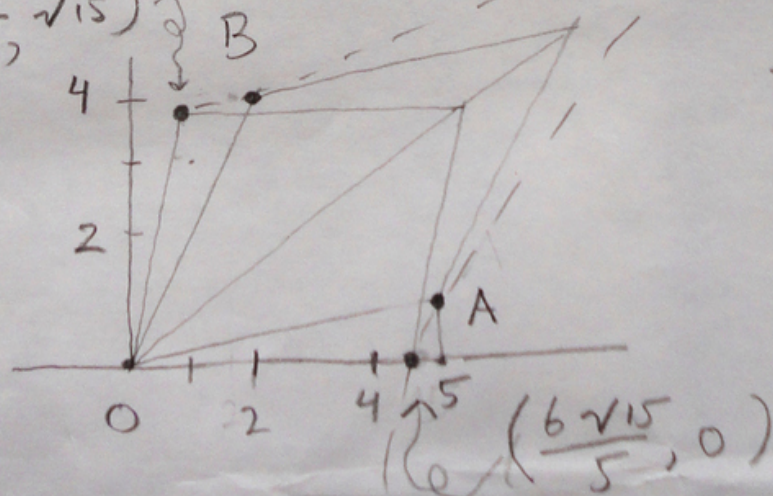
dolayısıyla $K, K' = \left(3 \pm \frac{\sqrt{15}}{5}, 2 \pm \sqrt{15} \right).$

Kontrol: $3 < \sqrt{15} < 4$, dolayısıyla $0 < \frac{\sqrt{15}}{5} < 1$;

$$\left(\frac{6\sqrt{15}}{5} \right)^2 = \frac{36 \cdot 15}{25} = \frac{36 \cdot 3}{5} = \frac{108}{5} = 21.6,$$

dolayısıyla $4 < \frac{6\sqrt{15}}{5} < 5$. Aslında

$$\left(\frac{\sqrt{15}}{5}, \sqrt{15} \right) \approx B$$



$$\frac{6\sqrt{15}}{5} \approx 4.6$$

$$\frac{\sqrt{15}}{5} \approx 0.8$$

$$\sqrt{15} \approx 3.9$$