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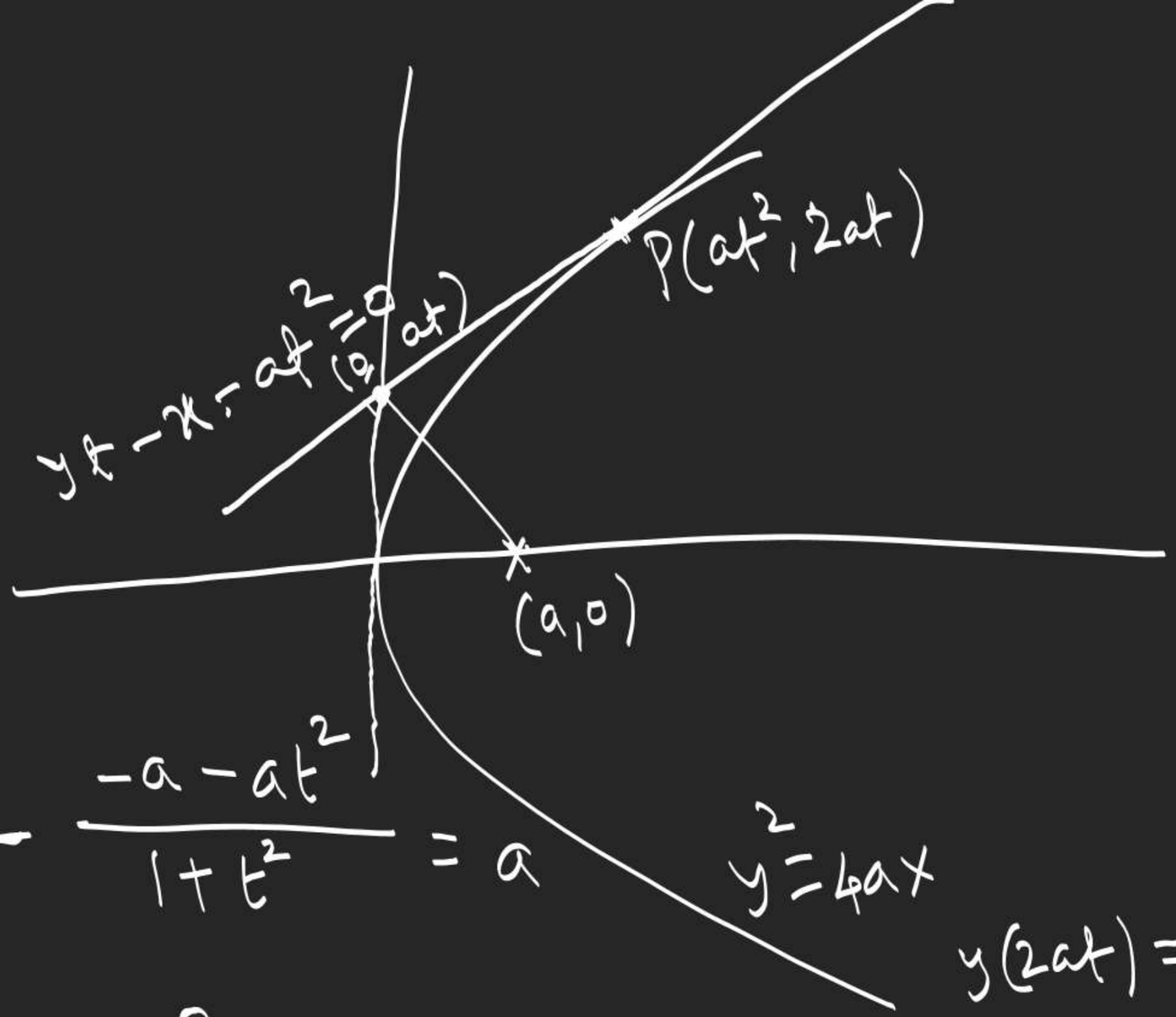
(3.)



$$\frac{x-a}{-1} = -\frac{-a-at^2}{1+t^2} = a$$

$$x = 0$$

$$y(2at) = 2a(x + at^2)$$

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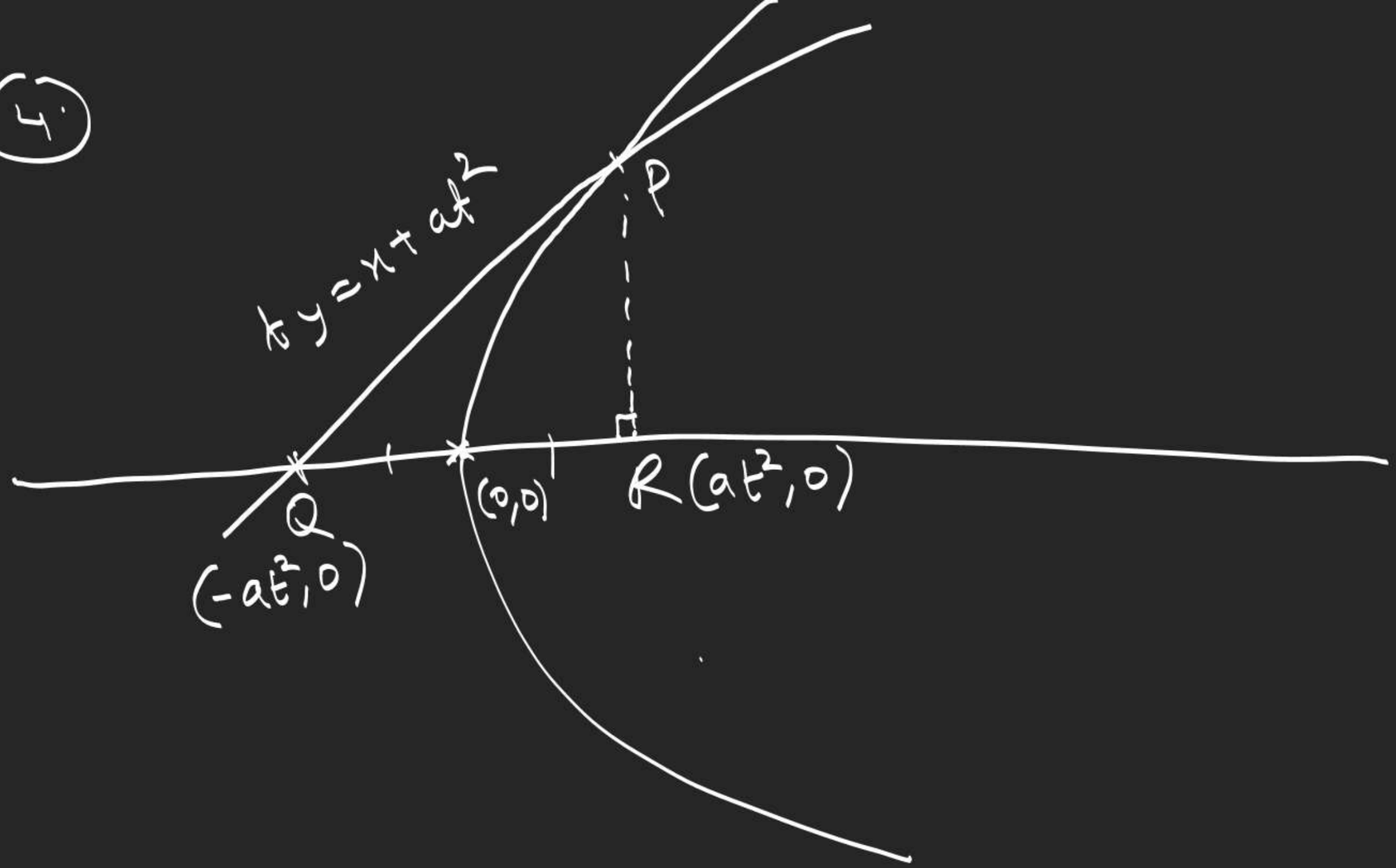
(4.)



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$$1-\left(\left(\frac{2}{3}\right)^{10}+{}^{10}C_1\left(\frac{1}{3}\right)\left(\frac{2}{3}\right)^{9}\right)$$

Ex 26 →

17, 26, 27, 38, 37

$y^2 \equiv 4a(x+a) = 4a(-a')$

$t_1 t_2 = -1$

$y^2 = 4a'(x+a') = 4a'(-a)$

t_1

t_2

① $- \quad y t_1 = x + a + a t_1^2$

② $- \quad y t_2 = x + a' + a' t_2^2$

① $\times t_2 -$ ② $\times t_1$

$0 = x(t_2 - t_1) + (a t_2 - a' t_1) - a t_1 + a' t_2$

$(t_2 - t_1)(x + a + a') = 0$

$x + a + a' = 0$

remaining $-$ Ex-I (Probability)

Vectors (71 − remaining)

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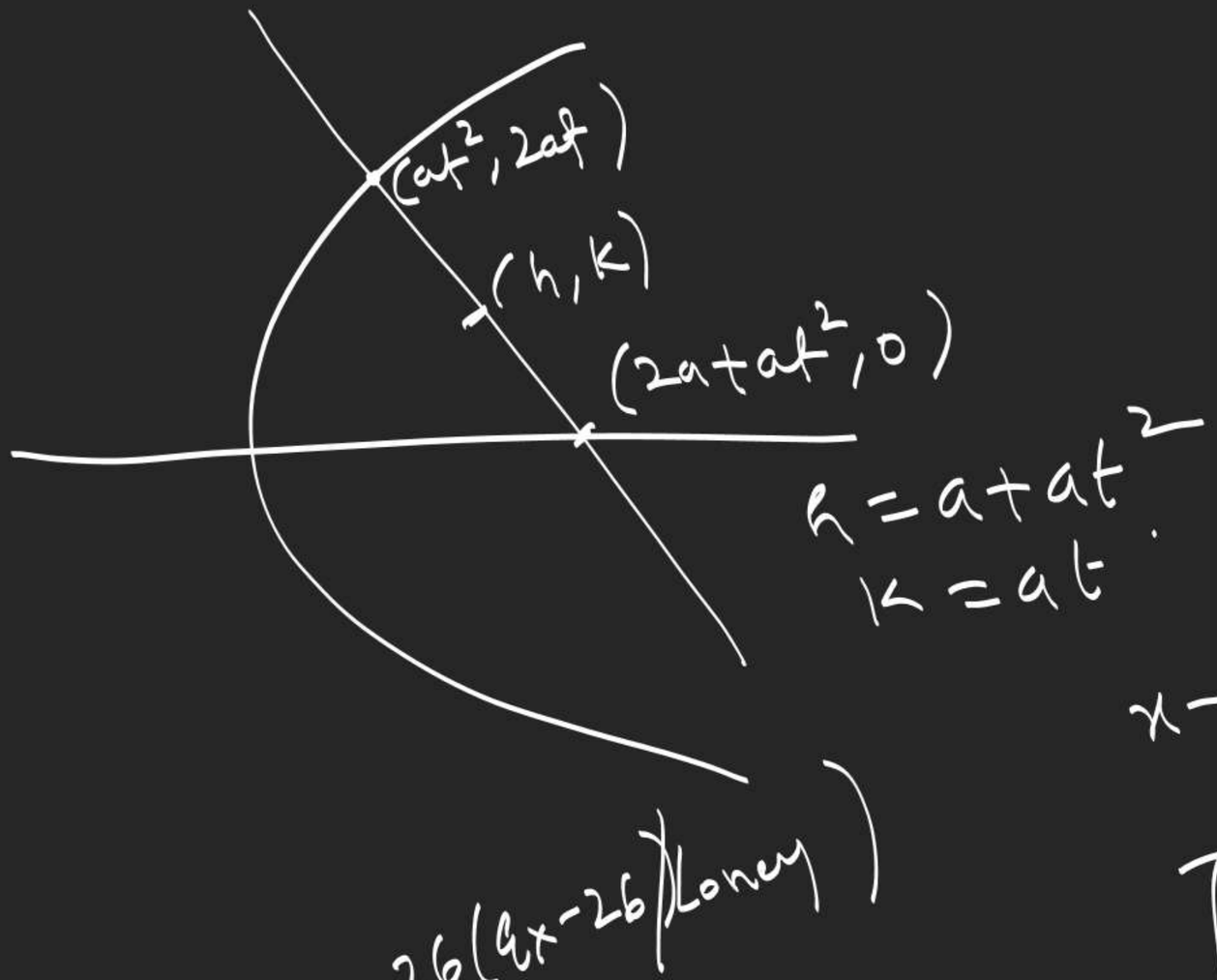

$h = a + at^2$

$k = at$

$x - a = a\frac{y^2}{a^2}$

$a(x-a) = y^2$

$26(9x-26)$ Lonely

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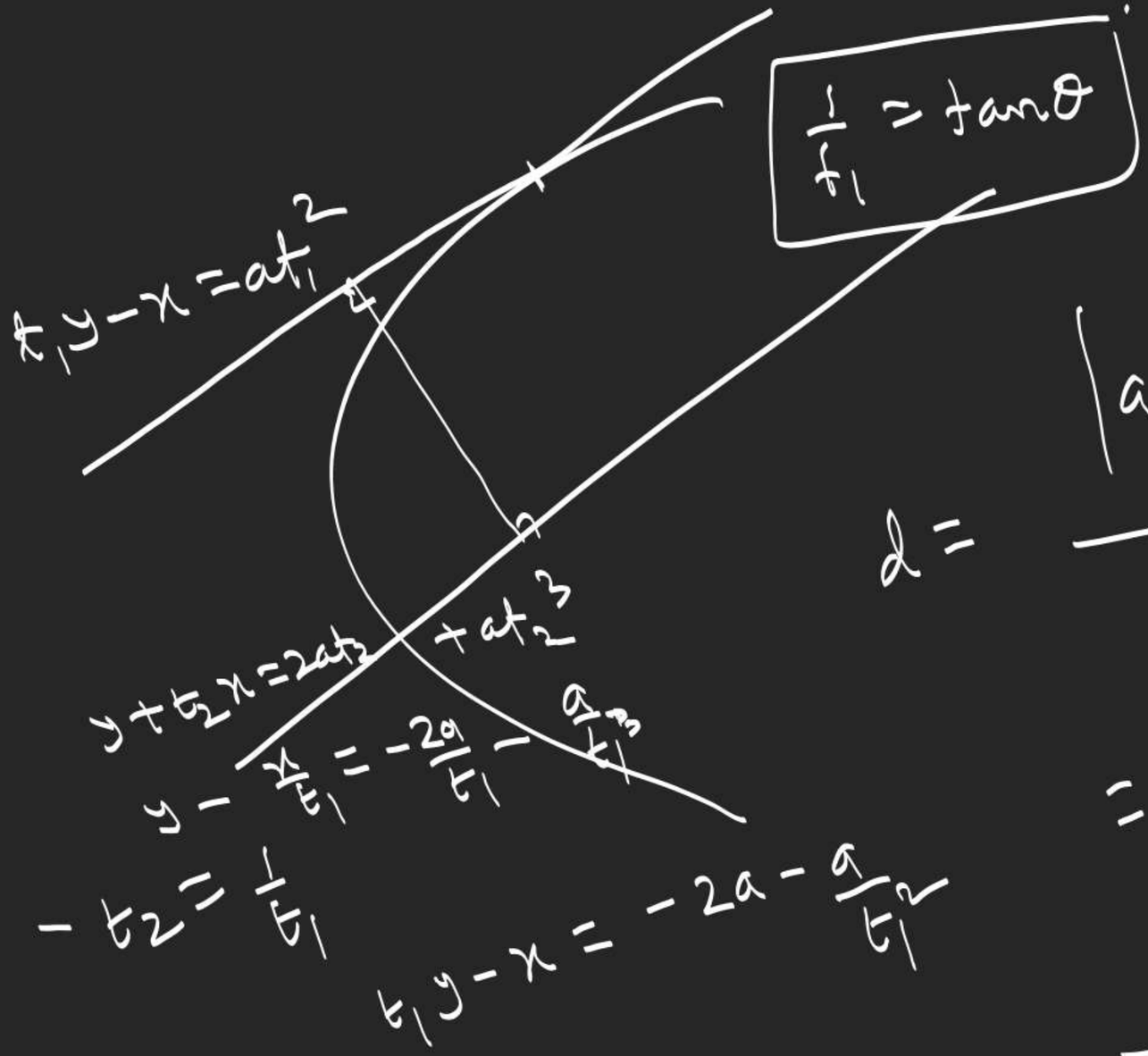

$$\frac{1}{t_1} = \tan\theta$$

$$y - \frac{x}{t_1} = -\frac{2a}{t_1} - \frac{a}{t_1^3}$$

$$-t_2 = \frac{1}{t_1}$$

$$d = \frac{\left| at_1^2 + \frac{a}{t_1^2} + 2a \right|}{\sqrt{1+t_1^2}}$$

$$= \frac{\left| a\left(\tan^2\theta + \cot^2\theta + 2\right) \right|}{\sqrt{1+\cot^2\theta}}$$

$$= a\left(\tan\theta + \cot\theta\right)^2 \sin\theta$$

$$= \frac{a\sin\theta}{\sin^2\theta\cos^2\theta}$$

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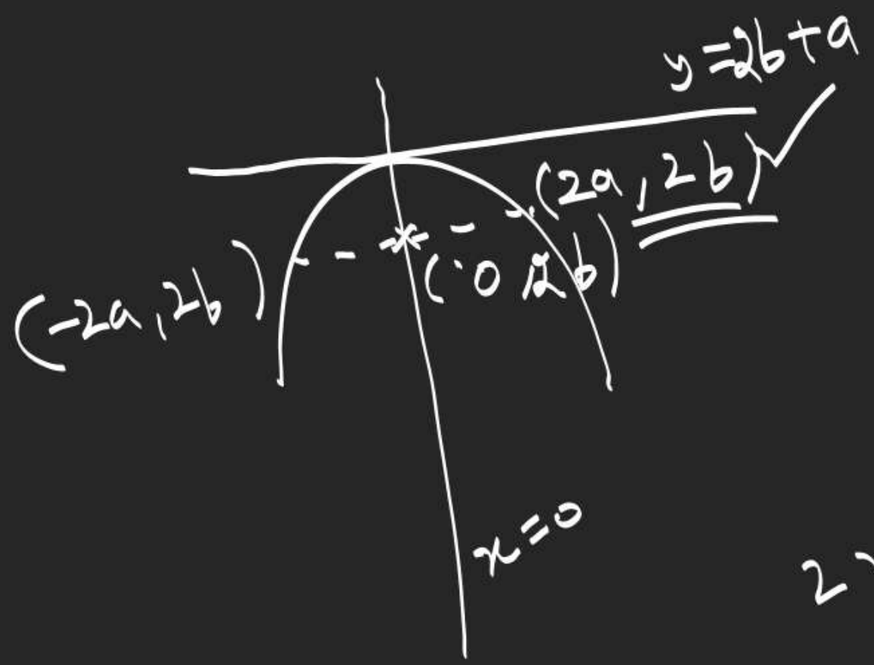
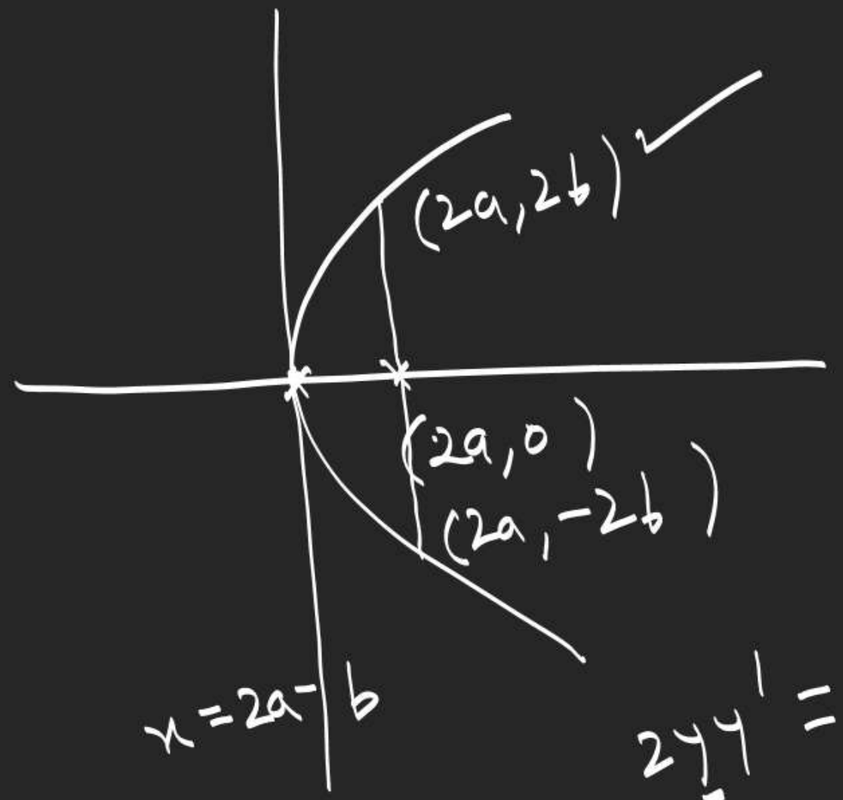
$x^2 = -4a(y-2b-a)$

$y^2 = 4b(x-2a+b)$ ✓





$2x = -4ay'$

$m_1 = -1$

$2yy' = 4b$

$m_2 = 1$

$m_1 m_2 = -1$

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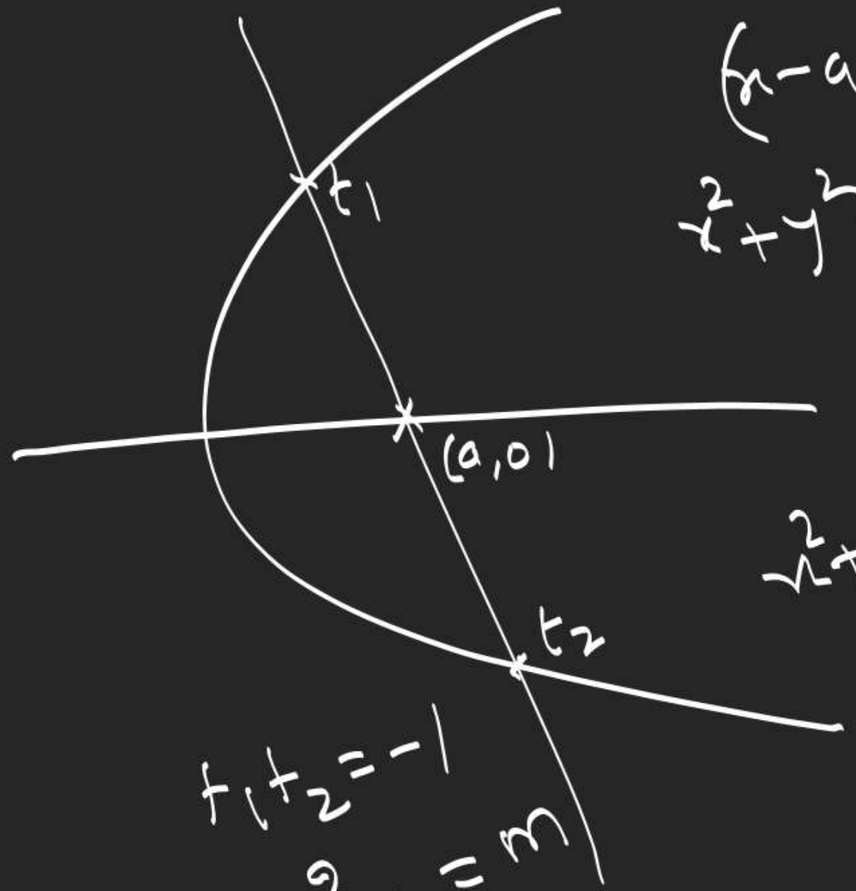
Ex-2B

23, 24, 29, 18.



$t_1 t_2 = -1$

$\frac{2}{t_1 + t_2} = m$

$(x - at_1^2)(x - at_2^2) + (y - 2at_1)(y - 2at_2) = 0.$

$x^2 + y^2 - ax((t_1+t_2)^2 - 2t_1t_2) - 2ay(t_1 + t_2)$

$+ a^2 t_1^2 t_2^2 + 4a^2 t_1 t_2 = 0$

$x^2 + y^2 - ax\left(\frac{4}{m^2} + 2\right) - 2ay\left(\frac{2}{m}\right) - 3a^2 = 0$