



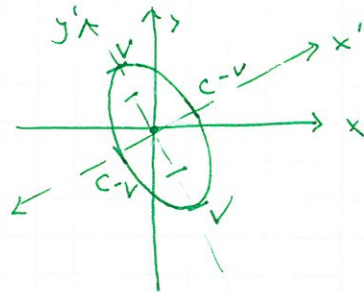
$$\textcircled{5} \quad 13 \left(\frac{\sqrt{3}x-y}{2} \right)^2 + 6\sqrt{3} \left(\frac{\sqrt{3}x-y}{2} \right) \left(\frac{x+\sqrt{3}y}{2} \right) + 7 \left(\frac{x+\sqrt{3}y}{2} \right)^2 = 16$$

$$13 \left(\frac{3x^2 - 2\sqrt{3}xy + y^2}{4} \right) + 6\sqrt{3} \left(\frac{\sqrt{3}x^2 + 2xy - \sqrt{3}y^2}{4} \right) + 7 \left(\frac{x^2 + 2\sqrt{3}xy + 3y^2}{4} \right) = 16$$

$$39x^2 - 26\sqrt{3}xy + 13y^2 + 18x^2 + 12\sqrt{3}xy - 18y^2 + 7x^2 + 14\sqrt{3}xy + 21y^2 = 64$$

$$64x^2 + 16y^2 = 64$$

$$\boxed{\frac{(x')^2}{1} + \frac{(y')^2}{4} = 1}$$



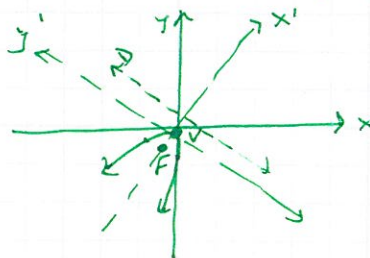
$$\textcircled{6} \quad 3 \left(\frac{x-\sqrt{3}y}{2} \right)^2 - 2\sqrt{3} \left(\frac{x-\sqrt{3}y}{2} \right) \left(\frac{\sqrt{3}x+y}{2} \right) + \left(\frac{\sqrt{3}x+y}{2} \right)^2 + 2 \left(\frac{x-\sqrt{3}y}{2} \right) + 2\sqrt{3} \left(\frac{\sqrt{3}x+y}{2} \right) = 0$$

$$3 \left(\frac{x^2 - 2\sqrt{3}xy + 3y^2}{4} \right) - 2\sqrt{3} \left(\frac{\sqrt{3}x^2 - 2xy - \sqrt{3}y^2}{4} \right) + \frac{3x^2 + 2\sqrt{3}xy + y^2}{4} + x - \sqrt{3}y + 3x + \sqrt{3}y = 0$$

$$3x^2 - 6\sqrt{3}xy + 9y^2 - 6x^2 + 4\sqrt{3}xy + 6y^2 + 3x^2 + 2\sqrt{3}xy + y^2 + 4 \cdot 4x = 0$$

$$16y^2 = -16x$$

$$\boxed{(y')^2 = -x'}$$



$$\textcircled{7} \quad \left(\frac{2\sqrt{5}x-\sqrt{5}y}{5} \right)^2 + 4 \left(\frac{2\sqrt{5}x-\sqrt{5}y}{5} \right) \left(\frac{\sqrt{5}x+2\sqrt{5}y}{5} \right) - 2 \left(\frac{\sqrt{5}x+2\sqrt{5}y}{5} \right)^2 = 1$$

$$\frac{20x^2 - 20xy + 5y^2}{25} + 4 \left(\frac{10x^2 + 15xy - 10y^2}{25} \right) - 2 \left(\frac{5x^2 + 20xy + 20y^2}{25} \right) = 1$$

$$20x^2 - 20xy + 5y^2 + 40x^2 + 60xy - 40y^2 - 10x^2 - 40xy - 40y^2 = 25$$

$$50x^2 - 75y^2 = 25$$

$$2x^2 - 3y^2 = 1$$

$$\boxed{\frac{(x')^2}{\frac{1}{2}} - \frac{(y')^2}{\frac{1}{3}} = 1}$$

