

$$\textcircled{2} \begin{cases} 4x^2 + 9y^2 = 36 \\ y + 3 = m(x - 3) \end{cases} \quad \begin{cases} 4x^2 + 9y^2 = 36 \\ y = mx - 3 \end{cases}$$

$$\begin{cases} 4x^2 + 9(mx - 3)^2 = 36 \\ y = \dots \end{cases}$$

$$4x^2 + 9(m^2x^2 - 6mx + 9) = 36$$

$$4x^2 + 9m^2x^2 - 36mx + 81 = 36$$

$$x^2 \left(\frac{9m^2 + 4}{a} \right) - \frac{36m}{b}x + \frac{45}{c} = 0$$

$$\Delta = b^2 - 4ac$$

$$(36m)^2 - 4(9m^2 + 16)(45) = 0$$

$$2916m^2 - 1620m^2 + 720 = 0$$

$$2916m^2 + 720 = 0$$

$$m^2 = \pm \sqrt{\frac{720}{2916}} \quad m = \pm \frac{\sqrt{5}}{3}$$