

$$\textcircled{1} \quad x^2 - y = 0$$

$$-2x + y = 0$$

$$y = 2x$$

$$x^2 - (2x) = 0$$

$$x(x-2) = 0$$

$$x = 0 \quad x = 2$$

$(0, 0)$
$(2, 4)$

$$\textcircled{2} \quad x^2 - y = 0$$

$$-3x + y = -2$$

$$y = 3x - 2$$

$$x^2 - (3x - 2) = 0$$

$$x^2 - 3x + 2 = 0$$

$$(x-2)(x-1) = 0$$

$$x = 2 \quad x = 1$$

$(2, 4)$
$(1, 1)$

$$\textcircled{3} \quad x^2 - y = 0$$

$$x^2 + 3y = 6$$

$$-y = -x^2$$

$$y = x^2$$

$$\left(\frac{\sqrt{3}}{2}, \frac{3}{2}\right) \left(-\frac{\sqrt{3}}{2}, \frac{3}{2}\right)$$

$$x^2 + 3(x^2) = 6$$

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

$$2(2x^2 - 3) = 0$$

$$2 = 0$$

$$2x^2 = 3$$

$$\frac{2x^2}{2} = \frac{3}{2}$$

$$\sqrt{x^2} = \sqrt{\frac{3}{2}}$$

$x = \pm \sqrt{\frac{3}{2}}$

$$u = \sqrt{\frac{3}{2}} = 3$$

④

$$x^2 - y = 0$$

$$-y = -x^2$$

$$y = x^2$$

$$x^2 + 4y = 4$$

$$x^2 + 4(x^2) = 4$$

$$x^2 + 4x^2 - 4 = 0$$

$$5x^2 - 4 = 0$$

$$x^2 = \frac{4}{5}$$

$$x = \pm \sqrt{\frac{4}{5}}$$

$$\left(\sqrt{\frac{4}{5}}, \right)$$

$$\left(-\sqrt{\frac{4}{5}}, \right)$$

⑤

$$x + y = 10$$

$$y = 10 - x$$

$$y = \frac{21}{x} \quad \text{or} \quad (-x + 10) = \left(\frac{21}{x}\right) \cdot x$$

$$-x^2 + 10x = 21$$

$$0 = x^2 - 10x + 21 = (x - 7)(x - 3) \quad \begin{matrix} x = 7 \\ x = 3 \end{matrix}$$

$$y = \frac{21}{7} = 3 \quad (7, 3)$$

$$y = \frac{21}{3} = 7 \quad (3, 7)$$

⑥

$$2x + y = 5$$

$$xy = 2$$

$$\left(2x + \frac{2}{x} = 5\right)$$

$$y = \frac{2}{x}$$

$$2x^2 + 2 = 5x$$

$$(2, 1)$$

$$2x^2 - 5x + 2 = 0$$

$$\left(\frac{1}{2}, 4\right)$$

$$(2x - 1)(x - 2) = 0$$

$$x = \frac{1}{2} \quad x = 2$$

$$\frac{2 \cdot 2}{1}$$