

$$a) x^2 - 12x - 45 = 0 \quad \text{no rule Buerger}$$

$$x_1 + x_2 = -12$$

$$x_1 = 15$$

$$x_1 \cdot x_2 = -45$$

$$x_2 = -3$$

$$b) y^2 + 17y + 60 = 0$$

$$y_1 + y_2 = -17$$

$$y_1 = -5$$

$$y_1 \cdot y_2 = 60$$

$$y_2 = -12$$

$$b) 3y - 40 + y^2 = 0$$

$$y^2 + 3y - 40 = 0$$

$$y_1 + y_2 = -3$$

$$y_1 = 5$$

$$y_1 \cdot y_2 = -40$$

$$y_2 = -8$$

$$z) x^2 - 2x + 16 = 0$$

$$x_1 + x_2 = 2$$

$$\cancel{x_1 \cdot x_2 = 16}$$

$$x_1 \cdot x_2 = 16$$

$$\cancel{x_1 \cdot x_2 = 16}$$

$$x \notin \mathbb{R}$$

$$g) x^2 - 27x = 0$$

$$x(x - 27) = 0$$

$$x = 0 \quad \text{um} \quad x - 27 = 0$$

$$x = 27$$

$$e) 60z + z^2 = 0$$

$$z(60 + z) = 0$$

$$z = 0 \quad \text{um} \quad 60 + z = 0$$

$$z = -60$$

$$m) 3x^2 - 15x + 18 = 0$$

$$D = b^2 - 4ac$$

$$D = 225 - 4 \cdot 3 \cdot 18 = 9$$

$$x_1 = \frac{15 + 3}{2 \cdot 3} = \frac{18}{6} = 3$$

$$x_2 = \frac{15 - 3}{2 \cdot 3} = \frac{12}{6} = 2$$

$$3) x^2 + x + 8 = 0$$

$$x \notin \mathbb{R}$$