

$$\begin{cases} (V - 10)(\rho + 2) = 336 \\ V \cdot \rho = 320 \end{cases} \iff \begin{cases} \left(\frac{320}{\rho} - 10\right)(\rho + 2) = 336 \\ V = \frac{320}{\rho} \end{cases}$$

$$\left(\frac{320}{\rho} \right) (\rho + 2) = 336$$

$$\frac{320}{\rho} \cdot \rho - 10\rho + \frac{320 \cdot 2}{\rho} - 20 = 336$$

$$-10\rho + 300 + \frac{640}{\rho} = 336 \quad \Big| \quad -336$$

$$-10\rho - 36 + \frac{640}{\rho} = 0 \quad \Big| \quad \cdot \rho$$

$$-10\rho^2 - 36\rho + 640 = 0 \quad \Big| \quad \cdot \frac{1}{2}$$

$$-5\rho^2 - 18\rho + 320 = 0$$

$$D = (-18)^2 - 4 \cdot (-5) \cdot 320 = 324 + 6400 = 6724$$

$$\rho_{1,2} = \frac{-(-18) \pm \sqrt{6724}}{2 \cdot (-5)} = \frac{18 \pm 82}{-10}$$

$$\left. \begin{array}{l} \rho_1 = \frac{18 + 82}{-10} = \frac{100}{-10} = -10 \\ \rho_2 = \frac{18 - 82}{-10} = \frac{-64}{-10} = 6.4 \end{array} \right\} \implies \begin{cases} \rho = -10 \\ V = \frac{320}{\rho} = \frac{320}{-10} = -32 \\ \rho = 6.4 \\ V = \frac{320}{\rho} = \frac{320}{6.4} = 50 \end{cases}$$

$$\begin{cases} x + y = 3 \\ x^2 + 3xy + y^2 - y - x = 2 \end{cases}$$

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

$$x^2 + 3xy + y^2 - (x + y) = 2$$

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

$$x^2 + 3xy + y^2 = 2 + 3 = 5$$

$$x^2 + 3xy + y^2 - xy + xy = 5$$

$$x^2 + 2xy + y^2 + xy = 5$$

$$(x + y)^2 + xy = 5$$

$$3^2 + xy = 5$$

$$9 + xy = 5$$

$$xy = 5 - 9$$

$$\left. \begin{array}{l} xy = -4 \\ x + y = 3 \end{array} \right\} \implies x^2 - 3x - 4 = 0$$

$$x^2 - 3x - 4 = 0$$

$$D = (-3)^2 - 4 \cdot (-4) \cdot 1 = 9 + 16 = 25$$

$$x_{1,2} = \frac{-(-3) \pm \sqrt{25}}{2 \cdot 1} = \frac{3 \pm 5}{2}$$

$$\left. \begin{array}{l} x_1 = \frac{3+5}{2} = \frac{8}{2} = 4 \\ x_2 = \frac{3-5}{2} = \frac{-2}{2} = -1 \end{array} \right\} \implies \begin{cases} x = 4 \\ y = -1 \\ x = -1 \\ y = 4 \end{cases}$$