PAG. 101 N 528

$$\begin{cases} 4x^2 + 4y^2 = 65 \\ 2x + 2y - 7 = 0 \rightarrow 2y = 7 - 2x \rightarrow y = \dfrac{7-2x}{2} \end{cases}$$

$$4x^2 + 4\left(\dfrac{7-2x}{2}\right)^2 = 65$$

$$4x^2 + \cancel{4} \cdot \dfrac{49 + 4x^2 - 28x}{\cancel{4}} = 65 \qquad \Delta = 49 + 32 = 81$$

$$4x^2 + 49 + 4x^2 - 28x - 65 = 0$$

$$8x^2 - 28x - 16 = 0 \rightsquigarrow 2x^2 - 7x - 4 = 0 \qquad x = \dfrac{7 \pm 9}{4} = \begin{array}{c} -\frac{1}{2} \\ 4 \end{array}$$

$$\begin{cases} x = -\dfrac{1}{2} \\ y = \dfrac{7+1}{2} = 4 \end{cases} \vee \begin{cases} x = 4 \\ y = \dfrac{7-8}{2} = -\dfrac{1}{2} \end{cases}$$

$$\boxed{\left(-\dfrac{1}{2}, 4\right) \vee \left(4, -\dfrac{1}{2}\right)}$$

n° 526

$$\begin{cases} x^2 + y^2 = 5 \\ x + y = -1 \end{cases} \quad \begin{cases} (-1-y)^2 + y^2 = 5 \\ x = -1 - y \end{cases} \quad \begin{cases} 1 + y^2 + 2y + y^2 = 5 \\ \underline{\qquad} \end{cases}$$

$$\begin{cases} 2y^2 + 2y - 4 = 0 \\ \underline{\qquad} \end{cases} \quad \begin{cases} y^2 + y - 2 = 0 \\ \underline{\qquad} \end{cases} \quad \begin{cases} (y+2)(y-1) = 0 \\ \underline{\qquad} \end{cases}$$

$$y = -2 \ \lor \ y = 1 \quad \begin{cases} x = -1 + 2 = 1 \\ y = -2 \end{cases} \quad \begin{cases} x = -1 - 1 = -2 \\ y = 1 \end{cases}$$

$$(1, -2) \quad (-2, 1)$$

N 511

$$\begin{cases} 3x + x^2 + 2 + y^2 = (x+2)^2 + y(y-1) \\ \dfrac{y}{x+1} = \dfrac{x-2}{1-x} - \dfrac{4}{x-1} \end{cases}$$

C.E. $x \neq \pm 1$

$-(x-1)$

$$\begin{cases} 3x + x^2 + 2 + y^2 = x^2 + 4 + 4x + y^2 - y \\ \dfrac{y(x-1)}{(x+1)(x-1)} = \dfrac{-(x+1)(x-2) - 4(x+1)}{(x+1)(x-1)} \end{cases}$$

$$\begin{cases} y = x + 2 \\ (x+2)(x-1) = -(x^2 - 2x + x - 2) - 4x - 4 \end{cases}$$

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

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

$$2x(x+2) = 0 \begin{cases} x = 0 \\ x = -2 \end{cases}$$

$$\begin{cases} x = 0 \\ y = 2 \end{cases} \lor \begin{cases} x = -2 \\ y = 0 \end{cases}$$

$$(0,2) \lor (-2,0)$$

501

$$\begin{cases} 5y + 3x - 6 = x + 4y - 8 \\ (x-y)^2 + 3xy - x + y = 2(y-x) \end{cases}$$

$$\begin{cases} y = -2x - 2 \\ (x + 2x + 2)^2 + 3x(-2x-2) - x - 2x - 2 = 2(\overset{-3x-2}{\overline{-2x-2-x}}) \\ (3x+2)^2 \end{cases}$$

$$9x^2 + 4 + 12x - 6x^2 - \cancel{6x} - x - 2x - 2 = -\cancel{6x} - 4$$

$$3x^2 + 9x + 6 = 0$$
$$x^2 + 3x + 2 = 0$$
$$(x+1)(x+2) = 0 \diagup^{x=-1}_{\diagdown x=-2}$$

$$\begin{cases} x = -1 \\ y = 0 \end{cases} \quad v \quad \begin{cases} x = -2 \\ y = 2 \end{cases}$$

$$\boxed{(-1,0) \ v \ (-2,2)}$$