

## SISTEMI LINEARI – ESERCIZI

1. 
$$\begin{cases} 3x + 1 - 2y = 2x + 7 \\ y - 4 = 5 - 6x + 8y \end{cases} \quad \left(-\frac{24}{5}; -\frac{27}{5}\right)$$
2. 
$$\begin{cases} 2(x + 2y) + 1 = 3x + 3 \\ 4x + y = 4(x - y + 1) \end{cases} \quad \left(\frac{1}{5}; \frac{4}{5}\right)$$
3. 
$$\begin{cases} x + 2y = \frac{2x - y}{2} \\ \frac{x}{6} - \frac{y}{3} = x + 3y \end{cases} \quad (0; 0)$$
4. 
$$\begin{cases} 2 - 3x = y - 1 - 4x + 11 \\ 3x - 5 - 2y = x + y \end{cases} \quad (19; 11)$$
5. 
$$\begin{cases} 11y + y - 6 = 2(y + x - 3) \\ y = 2x - 3 \end{cases} \quad \left(\frac{5}{3}; \frac{1}{3}\right)$$
6. 
$$\begin{cases} 7x - 3\left(y - \frac{5}{6}\right) = -3 \\ 2(8x + 1) - y = 2x + 5y \end{cases} \quad \text{imp.}$$
7. 
$$\begin{cases} x - 8y = 1 \\ -2x + 16y = 6 \end{cases} \quad \text{imp.}$$
8. 
$$\begin{cases} 27x - 2y = 0 \\ 9x - \frac{2}{3}y = 3 \end{cases} \quad \text{imp.}$$
9. 
$$\begin{cases} \frac{7}{4}x + 14y = 2 \\ \frac{1}{2}x + 4y = 7 \end{cases} \quad \text{imp.}$$
10. 
$$\begin{cases} \frac{4x - 6y}{3} + 3x = \frac{49}{6} \\ \frac{8y + x}{5} + \frac{4y + 2}{15} - \frac{x + 3}{5} = 0 \end{cases} \quad \left(-\frac{26}{5}; \frac{1}{4}\right)$$
11. 
$$\begin{cases} \frac{x}{4} + 1 + \frac{4x - y}{6} = 2 \\ \frac{x + y}{3} = \frac{7}{3} \end{cases} \quad \left(-\frac{26}{3}; \frac{47}{3}\right)$$
12. 
$$\begin{cases} 5x - 11y = 0 \\ 2x + 5y = 0 \end{cases} \quad (0; 0)$$
13. 
$$\begin{cases} \frac{10}{3}x - \frac{5}{2}y = -1 \\ -\frac{1}{3}x + \frac{1}{4}y = 1 \end{cases} \quad \text{imp.}$$
14. 
$$\begin{cases} 3x - 2y = 1 \\ -\frac{3}{2}x + y = -\frac{1}{2} \end{cases} \quad \text{ind.}$$
15. 
$$\begin{cases} \frac{1}{2}x + \frac{1}{3}y = 1 \\ 3x - 4y = 6 \end{cases} \quad (2; 0)$$
16. 
$$\begin{cases} \frac{x}{2} + y = 2 \\ 3x + 6y = 12 \end{cases} \quad \text{ind.}$$
17. 
$$\begin{cases} \frac{6}{x} - \frac{5}{y} = 0 \\ y - x = 3 \end{cases} \quad (-18; -15)$$
18. 
$$\begin{cases} 2x = 13 - 3y \\ \frac{x}{x - 2} = \frac{y}{y - 3} \end{cases} \quad \text{imp.}$$
19. 
$$\begin{cases} \frac{x - 4}{y} = 1 \\ \frac{y - 3}{2x} = 3 \end{cases} \quad \left(-\frac{7}{5}; -\frac{27}{5}\right)$$
20. 
$$\begin{cases} \frac{2x}{y + 1} = \frac{1}{2} \\ 2 = \frac{-y + 3}{x} \end{cases} \quad \left(\frac{2}{3}; \frac{5}{3}\right)$$
21. 
$$\begin{cases} \frac{x - y}{x + y} = \frac{9}{10} \\ 2x + y = 1 \end{cases} \quad \left(\frac{19}{39}; \frac{1}{39}\right)$$
22. 
$$\begin{cases} \frac{2y}{x - 1} = 1 \\ \frac{1}{x + y} = \frac{2}{2x - y} \end{cases} \quad \text{imp.}$$