

sistemi di equazioni di primo grado di due equazioni in due incognite intere

1	$\begin{cases} x + y = -5 \\ x - y = 5 \end{cases}$	(0; -5)
2	$\begin{cases} x - y = -1 \\ x + y = 7 \end{cases}$	(3; 4)
3	$\begin{cases} x - y + 2 = 0 \\ x = 10 - y \end{cases}$	(4; 6)
4	$\begin{cases} 2x + y = 0 \\ x + 6y = -11 \end{cases}$	(1; -2)
5	$\begin{cases} x + y = -4 \\ 2x - y = 1 \end{cases}$	(-1; -3)
6	$\begin{cases} x - y = -1 \\ -2x - y = +5 \end{cases}$	(-2; -1)
7	$\begin{cases} 3x + y = 1 \\ x - y - 3 = 0 \end{cases}$	(1; -2)
8	$\begin{cases} 6x + 2y = -4 \\ 2x - y = -3 \end{cases}$	(-1; 1)
9	$\begin{cases} 3x = 2y - 1 \\ 3x - y = 0 \end{cases}$	$\left(\frac{1}{3}; 1\right)$
10	$\begin{cases} 5x - y = 1 \\ -2x + y = 5 \end{cases}$	(2; 9)
11	$\begin{cases} x + y = -7 \\ x + 15y = -63 \end{cases}$	(-3; -4)
12	$\begin{cases} -x + y = +2 \\ x - y = -8 \end{cases}$	impossibile
13	$\begin{cases} x - y = 6 \\ 3x - 3y = 18 \end{cases}$	indeterminata
14	$\begin{cases} 2x - 8y - 4 = 0 \\ 2x = 6 + 8y \end{cases}$	impossibile

15	$\begin{cases} x + y = 5 \\ 3x - y = 7 \end{cases}$	(3; 2)
16	$\begin{cases} 4x - 3y = -1 \\ 3x - 2y = 0 \end{cases}$	(2; 3)
17	$\begin{cases} 3x + 2y = 1 \\ x - y = -3 \end{cases}$	(-1; 2)
18	$\begin{cases} 3x - y = 1 \\ 5x - 3y = 1 \end{cases}$	$\left(\frac{1}{2}; \frac{1}{2}\right)$
19	$\begin{cases} 6x + 2y = -9 \\ 6x - 6y = -13 \end{cases}$	$\left(-\frac{5}{3}; \frac{1}{2}\right)$
20	$\begin{cases} 4x - 2y = 2 \\ 3x - 2y = 3 \end{cases}$	(-1; -3)
21	$\begin{cases} x - y = -1 \\ 6x - 4y = -3 \end{cases}$	$\left(\frac{1}{2}; \frac{3}{2}\right)$
22	$\begin{cases} -4x - 2y - 8 = 0 \\ -2x - y = 4 \end{cases}$	Indeterminata
23	$\begin{cases} 2x + 3y = -1 \\ 2x + 5y = -11 \end{cases}$	(7; -5)
24	$\begin{cases} 6x + y = -10 \\ 7x + 2y = -5 \end{cases}$	(-3; 8)
25	$\begin{cases} 8x = 9y - 1 \\ 8x = 5y + 2 \end{cases}$	$\left(\frac{23}{32}; \frac{3}{4}\right)$
26	$\begin{cases} 3x - 2y = 2 \\ 15x - 10y = 1 \end{cases}$	impossibile
27	$\begin{cases} 2x - y = -3 \\ 6x - 3y = -9 \end{cases}$	indeterminato
28	$\begin{cases} 2x + 6y = 3 \\ 4x - 3y = 1 \end{cases}$	$\left(\frac{1}{2}; \frac{1}{3}\right)$

29	$\begin{cases} x + 2y = 3 \\ 3x + 2y = 7 \end{cases}$	$(2; \frac{1}{2})$
30	$\begin{cases} 3x + 2y = 4 \\ 5x + 4y = 7 \end{cases}$	$(1; \frac{1}{2})$
31	$\begin{cases} 4x + 3y = 3 \\ 2x + 3y = 2 \end{cases}$	$(\frac{1}{2}; \frac{1}{3})$
32	$\begin{cases} \frac{1}{3}x - 2y = 0 \\ 5x + 4y = 7 \end{cases}$	$(\frac{21}{17}; \frac{7}{34})$
33	$\begin{cases} 2x - y = 1 \\ 6x - 3y = 3 \end{cases}$	indeterminato
34	$\begin{cases} 2x - 4y = 3 \\ 4x - 8y = 5 \end{cases}$	impossibile
35	$\begin{cases} 3x - 2y = 7 \\ 2x + y = 0 \end{cases}$	$(1; -2)$
36	$\begin{cases} 2x - 7 = 0 \\ y + 3 = 0 \end{cases}$	$(\frac{7}{2}; -3)$
37	$\begin{cases} 3x - 1 = 0 \\ 5 + 2x = 0 \end{cases}$	impossibile
38	$\begin{cases} 3x - y = 5 \\ y = x - 1 \end{cases}$	$(2; 1)$
39	$\begin{cases} 3x + 2y = 7 \\ 6x + 4y = 14 \end{cases}$	indeterminato

40	$\begin{cases} x + 2y - 1 = 0 \\ x - 2y + 2 = 0 \end{cases}$	$\left(-\frac{1}{2}; \frac{3}{4}\right)$
41	$\begin{cases} 4y + 12 = 0 \\ 2x - 3y = 7 \end{cases}$	$(-1; -3)$
42	$\begin{cases} 4x - 3y - 2 = 0 \\ -8x + 6y - 1 = 0 \end{cases}$	impossibile
43	$\begin{cases} 2x + y - 2 = 0 \\ 3x - y - 3 = 0 \end{cases}$	$(1; 0)$
44	$\begin{cases} 2x - 3y = 4 \\ 4x - 6y = 8 \end{cases}$	indeterminato
45	$\begin{cases} y = 3x - 6 \\ 2x - 5y = 0 \end{cases}$	$\left(\frac{30}{13}; \frac{12}{13}\right)$
46	$\begin{cases} 2x - y + 1 = 0 \\ x - y + 6 = 0 \end{cases}$	$(5; 11)$
47	$\begin{cases} 5x - 3y = 4 \\ 5x - y = 2 \end{cases}$	$\left(\frac{1}{5}; -1\right)$
48	$\begin{cases} 2x - 4y = 15 \\ 4x + 4y = 9 \end{cases}$	$\left(4; -\frac{7}{4}\right)$
49	$\begin{cases} 4x - 3y = 1 \\ x + 2y = 3 \end{cases}$	$(1; 1)$
50	$\begin{cases} 2(2y - x) = 6(x - 1) \\ 3 = 4x - 2y \end{cases}$	indeterminato
51	$\begin{cases} 4x - 3y - 2 = 0 \\ 3x + 4y - 1 = 0 \end{cases}$	$\left(\frac{11}{25}; -\frac{2}{25}\right)$

52	$\begin{cases} 3x - y = 3 \\ 2x + y = 7 \end{cases}$	(2; 3)
53	$\begin{cases} 2x - 5y = 12 \\ 4x + 3y = -2 \end{cases}$	(1; -2)
54	$\begin{cases} 3x + 4y = 18 \\ 4x - 3y = -1 \end{cases}$	(2; 3)
55	$\begin{cases} 2x + 3y = 7 \\ 3x - y = 5 \end{cases}$	(2; 1)
56	$\begin{cases} 4x + 5y = -3 \\ x + 3y = 1 \end{cases}$	(-2; 1)
57	$\begin{cases} 2x - 3y = 4 \\ x - 2y = 1 \end{cases}$	(5; 2)
58	$\begin{cases} 7x + 5y = 7 \\ 2x - y = 19 \end{cases}$	(6; -7)
59	$\begin{cases} 7x - y = 2 \\ 3x + y = 8 \end{cases}$	(1; 5)
60	$\begin{cases} 3x + 2y = -2 \\ 5x + 7y = 4 \end{cases}$	(2; 2)
61	$\begin{cases} y = 15x \\ 5x - 2y = 5 \end{cases}$	$\left(-\frac{1}{5}; -3\right)$
62	$\begin{cases} 3x - 2y = 4 \\ x - 2y = -8 \end{cases}$	(6; 7)
63	$\begin{cases} 3x - 2y = 4 \\ 2x + 3y = 7 \end{cases}$	(2; 1)

64	$\begin{cases} x = y - 3 \\ 4x + 7y = 10 \end{cases}$	$(-1; 2)$
65	$\begin{cases} 3x + 3y = 6 \\ x + y = 1 \end{cases}$	<i>impossibile</i>
66	$\begin{cases} -x - y = -\frac{1}{2} \\ x + y = 2 \end{cases}$	<i>impossibile</i>
67	$\begin{cases} 5x - 7y = \frac{1}{6} \\ \frac{4}{3}x - \frac{3}{5}y = \frac{7}{15} \end{cases}$	$\left(\frac{1}{2}; \frac{1}{3}\right)$
68	$\begin{cases} \frac{3x - 2y}{3} - (y - x) = 0 \\ 2x + \frac{1}{2}y - 3 = \frac{7x - 5}{3} \end{cases}$	$(5; 6)$
69	$\begin{cases} y - 3x = 1 \\ x - \frac{1}{3}y = -\frac{1}{3} \end{cases}$	<i>indeterminato</i>
70	$\begin{cases} \frac{x}{2} + 3y = \frac{3}{5} \\ x - 5y = 2 \end{cases}$	$\left(\frac{18}{11}; -\frac{4}{55}\right)$
71	$\begin{cases} \frac{3}{2}x + y = 19 \\ y + \frac{4}{3}x = 17 \end{cases}$	$(12; 1)$
72	$\begin{cases} 3x - y + 4 = 0 \\ x - \frac{2y + 1}{6} = 1 \end{cases}$	<i>impossibile</i>

73	$\begin{cases} y = \frac{1}{3}x + 2 \\ x + 3y + 3 = 0 \end{cases}$	$(-\frac{9}{2}; \frac{1}{2})$
74	$\begin{cases} y = \frac{1}{2}x + \frac{5}{4} \\ 2x - y + \frac{7}{2} = 0 \end{cases}$	$(-\frac{3}{2}; \frac{1}{2})$
75	$\begin{cases} \frac{1}{5}x + \frac{1}{4}y = \frac{3}{4} \\ x - 3y = -9 \end{cases}$	$(0; 3)$
76	$\begin{cases} 3x - 7y = \frac{5}{2} \\ 3(y - 1) = -x + \frac{1}{2} \end{cases}$	$(2; \frac{1}{2})$
77	$\begin{cases} x + y = 2 \\ y + \frac{3}{7} = 0 \end{cases}$	$(\frac{17}{7}; -\frac{3}{7})$
78	$\begin{cases} 7x - 3y = -\frac{1}{4} \\ 2x + \frac{3}{5}y = \frac{7}{4} \end{cases}$	$(\frac{1}{2}; \frac{5}{4})$
79	$\begin{cases} 3x + y = 15 \\ \frac{5}{4}x + \frac{2}{3}y = 7 \end{cases}$	$(4; 3)$
80	$\begin{cases} \frac{11}{4}x - 14 = \frac{1}{8}y \\ \frac{6}{7}x = 4 - \frac{1}{7}y \end{cases}$	$(5; -2)$
81	$\begin{cases} x + 2y = 4 - x \\ 2 - 7x - 2y = 2x + 3y \end{cases}$	$(-2; 4)$

82	$\begin{cases} 4(4-x) - 24 = y + 2x - 24 \\ 3(x-y) - x^2 - 1 = 2(8-2y) - x - (x+1)^2 \end{cases}$	<i>indeterminato</i>
83	$\begin{cases} 20y - 2(x-3) = 5(5y-2) \\ 21(1-x) = 2(y-5) - 12x \end{cases}$	(3; 2)
84	$\begin{cases} \frac{3-2x}{3} + \frac{y}{6} = \frac{x}{4} \\ 3x - y = 1 \end{cases}$	(2; 5)
85	$\begin{cases} \frac{1}{2}x - \frac{1}{3}y = 1 \\ 3x = 5(y+3) \end{cases}$	(0; -3)
86	$\begin{cases} \frac{1}{2}y - 2 = \frac{2}{3}x \\ \frac{5}{12} + \frac{2x-1}{3} = \frac{1+y}{2} \end{cases}$	<i>impossibile</i>
87	$\begin{cases} \frac{2x-7}{2} - \frac{2(x-y)}{3} = 0 \\ \frac{x-y}{2} - \frac{7x-y}{6} = -2 \end{cases}$	\left(\frac{1}{2}; 5\right)
88	$\begin{cases} \frac{6x-4y-3}{10} - \frac{x+y}{2} = 0 \\ \frac{5y-4}{3} + \frac{2}{3} = x \end{cases}$	\left(-\frac{3}{2}; -\frac{1}{2}\right)
89	$\begin{cases} \frac{4x-7}{10} + \frac{1}{2}y - \frac{3y+x}{5} = -\frac{3}{10} \\ \frac{x}{3} - \frac{2}{3} = \frac{1}{6}y \end{cases}$	<i>indeterminato</i>
90	$\begin{cases} \frac{x+y}{2} = x+y + \frac{1}{2} \\ \frac{5x-15}{2} = \frac{y}{2} - 1 \end{cases}$	(2; -3)

91	$\begin{cases} \frac{x}{2} + \frac{x - 3y}{5} + 6 = x + y \\ 2x - y + \frac{1}{2} = \frac{5y - 3x}{2} + 4 \end{cases}$	(4; 3)
92	$\begin{cases} \frac{3}{4}(1 + 2x) + \frac{x - y}{4} = \frac{2x + 1}{2} \\ \frac{x + 1}{2} = \frac{2x - y}{3} \end{cases}$	(-1; -2)
93	$\begin{cases} \frac{1}{2}(x - 1) - \frac{3}{2}y = -5 \\ \frac{1}{3}x + \frac{3}{2}y = 7 \end{cases}$	(3; 4)
94	$\begin{cases} x - y = \frac{2}{5}x - \frac{1}{4}y \\ \frac{2x - y}{3} + 17y = \frac{7}{2} \end{cases}$	$\left(\frac{1}{4}; \frac{1}{5}\right)$
95	$\begin{cases} \frac{1}{3}x - \frac{1}{5}y = \frac{1}{90} \\ \frac{1}{3}x - \frac{1}{4}y = -\frac{1}{72} \end{cases}$	$\left(\frac{1}{3}; \frac{1}{2}\right)$
96	$\begin{cases} x - \frac{x - 2y}{15} = \frac{46}{15} \\ 2x - \frac{x + 2y}{2} = 11 + 2y \end{cases}$	$\left(\frac{32}{9}; -\frac{17}{9}\right)$
97	$\begin{cases} \frac{x + y + 3}{2} + 2x = 4 \\ \frac{x + y - 1}{3} + \frac{4}{3}y = 2 \end{cases}$	$\left(\frac{3}{4}; \frac{5}{4}\right)$
98	$\begin{cases} x + \frac{1}{2}y = 2 \\ 4x + 2y = 5 \end{cases}$	impossibile
99	$\begin{cases} 3x - \frac{1}{5}y = 6 \\ -15x + y = -30 \end{cases}$	indeterminato

100	$\begin{cases} 3x + 2y = 4 \\ 2y - \frac{3}{2}(x + 3) = -5 \end{cases}$	$(1; \frac{1}{2})$
101	$\begin{cases} x + 2y = 2(2x - y + 5) \\ 2 - 3x = y - 1 + 2(x + 6) \end{cases}$	$(-2; 1)$
102	$\begin{cases} 3x - 5 = 2(y + 1) - 8 \\ 2(x - 1) = 3(1 - 2y) + 9 \end{cases}$	$(1; 2)$
103	$\begin{cases} x - 2[y - (x + 1)] = 12 \\ 3x - 2(y + 3) = 4 \end{cases}$	indeterminato
104	$\begin{cases} \frac{1}{2}x - y = 3 \\ x + \frac{1}{3}y = \frac{11}{3} \end{cases}$	$(4; -1)$
105	$\begin{cases} 3x - 2(y + 1) = x + 2(x - y) \\ x + 4y = 0 \end{cases}$	impossibile
106	$\begin{cases} \frac{1}{3}\left(\frac{x-2}{4} - \frac{y+1}{2}\right) = -\left(\frac{3x-2}{3} - \frac{y-3}{2}\right) + 3 \\ 2^{-1}[4x - (2y - x)] = \frac{1-y}{10} - \left(5^{-1}x - \frac{23}{4}\right) \end{cases}$	$(2; -\frac{1}{2})$
107	$\begin{cases} \frac{2x-1}{5} - \frac{y+1}{2} = \frac{x-y}{2} - \frac{x+3}{10} \\ \frac{1}{2}(x+1) - 3y = 2 \end{cases}$	impossibile
108	$\begin{cases} \frac{3x+1}{2} - \frac{2y-1}{3} = \frac{2}{3}(2x-y) + \frac{2+x}{6} \\ \frac{x}{3} - \frac{y}{2} = 1 \end{cases}$	impossibile

109	$\begin{cases} \frac{2x-1}{15} = -\frac{y-1}{9} \\ \frac{x-y}{3} + \frac{1}{6} = \frac{2x-y}{8} \end{cases}$	$\left(\frac{1}{2}; 1\right)$
110	$\begin{cases} \frac{3x-2y+21}{6} - \frac{3y-2x}{4} = 2 \\ \frac{2x-y}{4} + \frac{x+y}{3} = \frac{14}{3} \end{cases}$	$(5; 6)$
111	$\begin{cases} \frac{3}{2}x + 4y = \frac{1}{2} + 2y + \frac{7}{4}x \\ \frac{1}{5}y - \frac{2}{5}x + 1 = \frac{1}{4}x - \frac{2}{5}y \end{cases}$	$\left(2; \frac{1}{2}\right)$
112	$\begin{cases} \frac{1}{8}\left(\frac{1}{2} + y\right) = \frac{x+6y}{2} + \frac{7}{6} - 2y \\ (x-2)(y+1) = y(x-1) - \frac{31}{6} \end{cases}$	$\left(-\frac{31}{11}; \frac{23}{66}\right)$
113	$\begin{cases} \frac{2y+2}{3} = 1 + \frac{3x+1}{12} \\ \frac{6x+1}{2} - 5 = \frac{1}{4} - \frac{3+4y}{4} \end{cases}$	$(1; 1)$
114	$\begin{cases} \frac{x+2}{5} - \frac{y-4}{6} = \frac{17}{30} \\ 4(x-1) + 3y = x + y + 2 \end{cases}$	$(0; 3)$
115	$\begin{cases} \frac{4x+6y}{3} + 3x = \frac{25}{3} \\ \frac{5x-7}{4} + \frac{2x-y}{2} = -\frac{y+3}{10} \end{cases}$	$(1; 2)$
116	$\begin{cases} \frac{4x-y}{3} - \frac{x}{2} - \frac{3x-2y}{4} = -\frac{1}{2} \\ \frac{x-3y}{4} + \frac{x+y+1}{8} + \frac{y}{2} = -\frac{3}{8} \end{cases}$	$(-2; -2)$
117	$\begin{cases} \frac{4x+3}{5} - \frac{2x-3y}{10} = \frac{1}{2} - \frac{x+4y}{5} \\ \frac{x}{2} + \frac{4+y}{3} = \frac{2(x+y+4)}{5} + \frac{1}{3} \end{cases}$	$(4; -3)$

118	$\begin{cases} \frac{7}{2} + \frac{y-x}{2} = 3\left(\frac{1}{2}y - \frac{1}{2}x\right) \\ \frac{6}{5} - \frac{3(x-2y)}{10} = \frac{1}{2}y - \frac{1}{5}x \end{cases}$	<i>impossibile</i>
119	$\begin{cases} (x-1)(x+1) = x^2 + y^2 + 3 - (y-2)^2 \\ (y-3x)(y+3x) - y^2 + 3x = 4 - 9x^2 - 2y \end{cases}$	$\left(\frac{4}{3}; 0\right)$
120	$\begin{cases} (y-x)^2 - (y-3)(y+2) = x(x-5) - 2y(x+4) + x \\ \frac{1}{2}x^2 = \frac{1}{2}(x+y)^2 - \frac{1}{2}(y-1)^2 - x(y-3) \end{cases}$	$\left(\frac{21}{46}; -\frac{20}{23}\right)$
121	$\begin{cases} 2y + \left(2 - \frac{4}{3}\right)x = \left(2 - \frac{1}{2}\right)y \\ \frac{1}{3}x + \frac{1}{2}y = \frac{5}{6} + \left(\frac{1}{2} - \frac{1}{3}\right)(x+y) \end{cases}$	$(-3; 4)$
122	$\begin{cases} \frac{x+y}{-\frac{4}{5}+2} + \frac{5}{4}x - \frac{1}{12} = \frac{4y+3}{1+\frac{1}{2}} - \frac{x-1}{\frac{2}{3}-1} \\ \left(\frac{3x-y}{6} + \frac{y-1}{2}\right)\left(2 - \frac{3}{4}\right)^{-1} = \left(\frac{1}{2} + 1\right)\left(\frac{2}{5}x + \frac{1}{3}y\right) + \frac{2}{5} \end{cases}$	$(-11; 6)$
123	$\begin{cases} \frac{(x-1)(2y-1)}{2} - \frac{(3x-2)(y+1)}{3} = \frac{1}{2}y - \frac{2}{3}x - \frac{1}{2} \\ \frac{1}{2}(3x-2y+4) + \frac{1}{5}(y-x-1) = \frac{23}{10} \end{cases}$	$(1; 1)$
124	$\begin{cases} \frac{5}{3}x - \frac{y}{2} = \frac{7}{12} \\ \frac{7}{2}x - \frac{10}{3}y = \frac{1}{2} \end{cases}$	$\left(\frac{1}{2}; -\frac{1}{2}\right)$
125	$\begin{cases} \frac{3x+2}{3} - \frac{2y+1}{6} = \frac{3}{2} \\ \frac{x+1}{2} + \frac{y-2}{4} = \frac{7}{4} \end{cases}$	$(2; 3)$

126

$$\begin{cases} \frac{3x - 2y + 2}{4} - \frac{2x + y - 3}{2} = \frac{1}{2} \\ \frac{x - 3y + 4}{3} + \frac{5x - y - 4}{4} = \frac{9}{4} \end{cases}$$

(2; 1)

127

$$\begin{cases} (4x - 5)(3y - 2) - (2x - 1)(6y + 5) = -3 \\ 3x - 2(x - y) = 3y + 4 \end{cases}$$

(2; -2)

128

$$\begin{cases} \frac{3x + 2}{5} - \frac{2x - y}{4} = \frac{2x + y - 3}{2} - \frac{9}{5} \\ \frac{2x - 3y}{4} + \frac{x + y - 2}{3} = \frac{3x - 2y}{6} \end{cases}$$

(3; 4)

129

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

 $\left(\frac{5}{2}; -\frac{1}{2}\right)$

sistemi di equazioni di primo grado di due equazioni in due incognite a coefficienti irrazionali

130

$$\begin{cases} \sqrt{3}x + \sqrt{2}y = 3\sqrt{6} \\ \sqrt{2}x - \sqrt{3}y = 0 \end{cases}$$

 $\left(\frac{9\sqrt{2}}{5}; \frac{6\sqrt{3}}{5}\right)$

131

$$\begin{cases} x + y = \sqrt{5} - \sqrt{2} \\ \sqrt{2}x + \sqrt{5}y = 0 \end{cases}$$

 $(\sqrt{5}; -\sqrt{2})$

132

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

 $(\sqrt{6}; \sqrt{6} + 2)$

133
$$\begin{cases} x + y = 4\sqrt{2} \\ x(1 + 2\sqrt{2}) = y(2\sqrt{2} - 1) \end{cases}$$

$$(2\sqrt{2} - 1; 2\sqrt{2} + 1)$$

134
$$\begin{cases} x - 5y = 1 + \sqrt{5}y \\ \sqrt{5}(x - y) = x + 1 \end{cases}$$

$$\left(\frac{\sqrt{5}}{3}; \frac{2\sqrt{5} - 5}{15}\right)$$

135
$$\begin{cases} 5\sqrt{2} + \sqrt{5}y = x(\sqrt{10} + 1) \\ x + y = \sqrt{5} + 1 \end{cases}$$

$$(\sqrt{5}; 1)$$

136
$$\begin{cases} \sqrt{6}x + y = 2 + \sqrt{6} \\ \frac{\sqrt{3}x - y}{\sqrt{6}} = \frac{3 - 2\sqrt{3}}{3\sqrt{2}} \end{cases}$$

$$(1; 2)$$

sistemi equazioni di primo grado di due equazioni in due incognite frazionarie

137
$$\begin{cases} \frac{9}{x} + \frac{2}{y} = 4 \\ \frac{6}{y} = 2 + \frac{3}{x} \end{cases}$$

$$(3; 2)$$

138
$$\begin{cases} \frac{4}{x} + \frac{5}{y} = 2 \\ \frac{10}{y} - \frac{4}{x} = 1 \end{cases}$$

$$(4; 5)$$

139
$$\begin{cases} 10 - \frac{13}{4x} + \frac{3}{y} = 0 \\ \frac{3}{2y} + 9 = \frac{1}{2} + \frac{5}{2x} \end{cases}$$

$$\left(\frac{1}{4}; 1\right)$$

140	$\begin{cases} \frac{y+1}{x-3} = 2 \\ x-3 = \frac{y+1}{2} \end{cases}$	<i>indeterminato</i>
141	$\begin{cases} \frac{1}{x} + \frac{1}{y} = \frac{3}{y} \\ x - \frac{3}{2} = y \end{cases}$	$\left(-\frac{3}{2}; -3\right)$
142	$\begin{cases} \frac{8}{x} = \frac{2}{y} \\ 1 - \frac{y+4}{x-2} = 0 \end{cases}$	$(8; 2)$
143	$\begin{cases} -\frac{x+4}{y+4} = 2 \\ \frac{y+5}{x+3} = -1 \end{cases}$	<i>impossibile</i>
144	$\begin{cases} \frac{8x+4y+7}{4x-9y+1} = -\frac{13}{2} \\ \frac{7y-2x+6}{3y+4-5x} = \frac{3}{11} \end{cases}$	$(-2; -1)$
145	$\begin{cases} 8(2y-3x+7) = 7(x+3y-9) \\ \frac{x-1}{1+y} = \frac{1}{2} - \frac{9-3x}{y+1} \end{cases}$	<i>impossibile</i>
146	$\begin{cases} \frac{x+1}{6-4y} - \frac{1-2y}{2y-3} = \frac{y-x}{12-8y} \\ y = \frac{4}{3} + x \end{cases}$	$\left(-1; \frac{1}{3}\right)$

147	$\begin{cases} \frac{7 - x^2 + 3y}{xy - x^2} = 1 - \frac{y - 2}{y - x} \\ \frac{6 + 2x}{2x - 1} = \frac{2(4x + y)}{1 - 4x + 4x^2} \end{cases}$	$\left(-\frac{2}{3}; -\frac{25}{9}\right)$
148	$\begin{cases} 2(1 + y) = 5 - x + 2y \\ \frac{1 + 2x + 3y}{2x + 3y} = \frac{3x + 2y + 1}{3x + 2y} \end{cases}$	$(3; 3)$
149	$\begin{cases} 2(x + y) = 3 \\ \frac{1}{4}y + \frac{1}{2} - \frac{2}{5}y - \frac{1}{4} + \frac{9}{10} = 0 \end{cases}$	$\left(-\frac{1}{2}; 2\right)$
150	$\begin{cases} \frac{5y - 12x}{7 - y} - \frac{12(x - 2y)}{7 + y} = \frac{5(6x + 4y^2 - 16) - y^2 - 42}{y^2 - 49} \\ -\frac{x + 2}{y - 1} + \frac{y - 1}{x + 2} = \frac{(y - x)(x + y) - 3(x + y) - 4}{xy - x + 2y - 2} \end{cases}$	$(5; 4)$
151	$\begin{cases} \frac{x - 3y}{2x + y} = -\frac{5}{4} \\ \frac{x + 5}{y - 1} = 6 \end{cases}$	$(1; 2)$
152	$\begin{cases} \frac{x}{y} + \frac{2}{3} = 5 - \frac{26}{3}y \\ \frac{x + y}{2} + \frac{1}{y + 1} = \frac{11}{12} \end{cases}$	$\left(0; \frac{1}{2}\right)$
153	$\begin{cases} \frac{12x - 7}{2} + \frac{5(y + 1)}{x + 2} = \frac{35}{6} \\ \frac{1}{5}x + \frac{1}{3}y = \frac{8}{15} \end{cases}$	$(1; 1); \left(-\frac{17}{18}; \frac{13}{6}\right)$

154	$\begin{cases} \frac{x+y}{2} = -\frac{1}{5} \\ \frac{5x+3y}{2x+7y} = 0 \end{cases}$	$\left(\frac{3}{5}; -1\right)$
155	$\begin{cases} \frac{x-7}{y} + 7 = \frac{1}{x} \\ \frac{1}{x} + \frac{1}{y+1} = \frac{x}{2} \end{cases}$	$(-1; 1)$
156	$\begin{cases} \frac{x+y-3}{x+y} = -\frac{1}{2} \\ \frac{1}{x} + \frac{3}{y} = 4 \end{cases}$	$\left(\frac{1}{2}; \frac{3}{2}\right); (1; 1)$
157	$\begin{cases} \frac{x-1}{y+1} + \frac{x}{y} = -\frac{1}{3} \\ \frac{5x+7y}{x-y} + y = -5 \end{cases}$	$(0; 2); \left(\frac{117}{133}; -\frac{13}{7}\right)$
158	$\begin{cases} \frac{3x}{y-3} + \frac{x+y}{2x-y} = -\frac{9}{10} \\ -x + 2y + 7 = 0 \end{cases}$	$(1; -3); \left(\frac{91}{237}; -\frac{784}{237}\right)$
159	$\begin{cases} \frac{x+y-5}{x-y} = -\frac{59}{4} \\ \frac{3x-5y}{6x+10y-1} = 0 \end{cases}$	$\left(\frac{2}{3}; \frac{2}{5}\right)$
160	$\begin{cases} \frac{5x-y}{11x+7y} = x - \frac{1}{7} \\ \frac{3x-5y}{5} = -1 \end{cases}$	$(0; 1); \left(-\frac{15}{532}; \frac{523}{532}\right)$

sistemi di equazioni di primo grado in più equazioni e più incognite intere

161	$\begin{cases} x + 2y - 3z = 4 \\ -5x + y = -5 \\ 2x + z = 1 \end{cases}$	(1; 0; -1)
162	$\begin{cases} x + 2y = 12 \\ -x - 3y + z = -4 \\ -y + z = 8 \end{cases}$	indeterminato (12 - 2y; y; 8 + y)
163	$\begin{cases} x + 2y - 2z = -5 \\ 2x - 2y + z = -5 \\ x - y + 2z = -1 \end{cases}$	(-3; 0; 1)
164	$\begin{cases} 2x - 3y + 4z = 9 \\ 3x - 2y + z = 8 \\ 11x - 9y + 7z = 30 \end{cases}$	impossibile
165	$\begin{cases} 7x + 8y + z = -3 \\ 8x + 7y + z = 6 \\ 6x + 6y + z = 3 \end{cases}$	(4; -5; 9)
166	$\begin{cases} \frac{x}{2} + y + 5z = -3 \\ 5x - 7y + z = -15 \\ x + y = 2 \end{cases}$	(0; 2; -1)
167	$\begin{cases} 3x - y + z = -1 \\ y + z = 0 \\ x + \frac{y}{2} = 2 \end{cases}$	(1; 2; -2)
168	$\begin{cases} 2x - 3y + z = -3 \\ y + 2z = \frac{1}{3} \\ x - 6y + 3z = -3 \end{cases}$	$\left(-1; \frac{1}{3}; 0\right)$
169	$\begin{cases} x + y + z = -1 \\ x + y = 0 \\ y - z = 2 \end{cases}$	(-1; 1; -1)

170	$\begin{cases} 3x - 5y - z = 5 \\ \frac{x}{2} + 3y = 1 \\ y + z = 1 \end{cases}$	(2; 0; 1)
171	$\begin{cases} x + y = 3 \\ x - z = 4 \\ y + z = -1 \end{cases}$	indeterminato (3 - y; y; -1 - y)
172	$\begin{cases} 2x + 7y - 4z = 8 \\ -x + 2y = \frac{3}{2} \\ 4x - y + z = 1 \end{cases}$	$\left(\frac{1}{2}; 1; 0\right)$
173	$\begin{cases} x - y + z = 1 \\ 3x - 4y + 7z = 10 \\ y - \frac{z}{2} = 0 \end{cases}$	(0; 1; 2)
174	$\begin{cases} 2x - 3y - z = 5 \\ x - y - z = 0 \\ x - z = -1 \end{cases}$	(3; -1; 4)
175	$\begin{cases} 3x + y - z = -2 \\ 5x + 3z = -1 \\ 7x - 2z = 1 \end{cases}$	$\left(\frac{1}{31}; -\frac{77}{31}; -\frac{12}{31}\right)$
176	$\begin{cases} \frac{x+y+5}{2z} = 1 \\ \frac{3x-z-3}{y+1} = 2 \\ x + 2(y+4) = 4(z-1) \end{cases}$	impossibile

177	$\begin{cases} x - y + 2z = 1 \\ \frac{2x - y}{z} + 1 = 0 \\ \frac{3}{2}(x + z) = y \end{cases}$	<i>impossibile</i>
178	$\begin{cases} x + 2y + z = 2 \\ z + y - 2x = 0 \\ \frac{2}{3}z + 2y + \frac{1}{2}x = \frac{1}{2} \end{cases}$	$(1; -1; 3)$
179	$\begin{cases} 2x + y - 3z = -10 \\ 3x - 2y - z = -1 \\ x + 4y + 2z = 16 \end{cases}$	$(2; 1; 5)$
180	$\begin{cases} x + y + z = 1 \\ 2x - y + z = 5 \\ x + 2y - 2z = 6 \end{cases}$	$\left(\frac{16}{5}; -\frac{2}{5}; -\frac{9}{5}\right)$
181	$\begin{cases} x + y + z = 6 \\ 2x + y - z = 1 \\ 2x - 3y + z = -1 \end{cases}$	$(1; 2; 3)$
182	$\begin{cases} 2x - y - 4z = 3 \\ -x + 3y + z = -10 \\ 3x + 2y - 2z = -2 \end{cases}$	$(2; -3; 1)$
183	$\begin{cases} 4x - 3z + t = 10 \\ 5y + z - 4t = 1 \\ 3y + t = 17 \\ x + 2y + 3t = 25 \end{cases}$	$(2; 4; 1; 5)$

184

$$\begin{cases} x + y + t = 0 \\ 12x + 6y - 6z - 2t = 1 \\ 3x - 3y + 6z - 3t = 1 \\ -6x + 12y - 6z + 6t = 11 \end{cases}$$

$$\left(-\frac{1}{2}; \frac{3}{2}; \frac{2}{3}; -1 \right)$$

185

$$\begin{cases} x - 2y - 3z - t + 2u = 3 \\ 3x - y + 2z - 2t - u = -4 \\ -4x + y - 2z + t - u = 5 \\ 2x - y + 3z - t + u = -1 \\ -2x + 3y - z + 4t - 2u = -5 \end{cases}$$

$$(-2; -1; 0; -1; 1)$$