

Equazioni in valore assoluto

1	$ x + 8 = 2$	$x_1 = -6; x_2 = -10$
2	$ 3 - x = 5$	$x_1 = -2; x_2 = 8$
3	$ x - 3 = 2$	$x_1 = 1; x_2 = 5$
4	$ 2x - 1 = 5$	$x_1 = -2; x_2 = 3$
5	$ 2x - 1 = 1$	$x_1 = 0; x_2 = 1$
6	$ x + 8 = -2$	<i>impossibile</i>
7	$ 4x + 3 = 3$	$x_1 = 0; x_2 = -\frac{3}{2}$
8	$ 5 + 2x = 3$	$x_1 = -1, x_2 = -4$
9	$ 4 - x = 1$	$x_1 = 3, x_2 = 5$
10	$ 5 - 2x = -1$	<i>impossibile</i>
11	$ x^2 - 8 = 1$	$x_{1,2} = \pm\sqrt{7};$ $x_{3,4} = \pm 3$
12	$7 - 2 - x = 3$	$x_1 = 6, x_2 = -2$
13	$ x^2 - 4x - 5 = 7$	$x_1 = -2; x_2 = 6;$ $x_{3,4} = 2 \pm \sqrt{2};$
14	$\left \frac{3x + 2}{5}\right = 0$	$x = -\frac{2}{3}$
15	$\left \frac{x - 3}{2} + 1\right = 0$	$x = 1$
16	$ x + 3 = -1$	<i>impossibile</i>
17	$2 - \frac{ x + 1 }{3} = \frac{1}{2} + 1$	$x_1 = 2, x_2 = -8$
18	$ x^2 - x = 6$	$x_1 = -2, x_2 = 3$
19	$\left \frac{1-3x}{2} + 1\right = 3 - \frac{1}{2}$	$x_1 = -\frac{2}{3}, x_2 = \frac{8}{3}$
20	$ 4x - x^2 = 8 + x - x^2$	$x_1 = \frac{5 - \sqrt{89}}{4}, x_2 = \frac{8}{3}$
21	$ 3x - 5 = 2x + 1$	$x_1 = \frac{4}{5}, x_2 = 6$

Equazioni in valore assoluto

22	$ x - 1 = 4 - 2x$	$x = \frac{5}{3}$
23	$ x - 1 + 1 = 2x$	$x = \frac{2}{3}$
24	$ 2x - 1 = 3x - 2$	$x = 1$
25	$ x^2 - 4 = 2x^2 + x$	$x_1 = -\frac{4}{3}; x_2 = 1$
26	$ 4x + 5 = (2 - x)(2 + x) + 3 + x^2$	$x_1 = \frac{1}{2}; x_2 = -3$
27	$ 2x - 2 = x + 1$	$x_1 = \frac{1}{3}; x_2 = 3$
28	$ x^2 - 4 = x + 2$	$x_1 = -2; x_2 = 1;$ $x_3 = 3$
29	$ 4x + 3 = 3 - x$	$x_1 = -2; x_2 = 0$
30	$ 2x - 1 = x - 6$	<i>impossibile</i>
31	$x^2 + 3 - 5x = 3$	$x_1 = 0; x_2 = 1$
32	$ x^2 - 8x + 10 - 2 = 0$	$x_{1,2} = 4 \pm 2\sqrt{2};$ $x_3 = 2; x_4 = 6;$
33	$ 2x + 12 = 7x - 3$	$x = 3$
34	$ 2x + 7 - 4 = x$	$x_1 = -\frac{11}{3}; x_2 = -3$
35	$ x^2 - 3x + 2 = -4 + 2x$	$x_1 = 2; x_2 = 3$
36	$x^2 - 3 = x^2 - 4x + 3 $	$x = 2$
37	$4x^2 + x = 1 - x^2 $	$x_{1,2} = \frac{-1 \pm \sqrt{21}}{10}$
38	$\left \frac{2x - 3}{5 - x} \right = 2$	$x = \frac{13}{4}$
39	$\left \frac{3x-1}{x+3} \right = 1$	$x_1 = -\frac{1}{2}; x_2 = 2$
40	$\left \frac{x-1}{x-2} \right = 5 - x$	$x_1 = 3; x_2 = 4 - \sqrt{5}$
41	$\left \frac{3x-1}{2x+1} \right = \frac{1}{2}$	$x_1 = \frac{1}{8}; x_2 = \frac{3}{4}$

42	$\left \frac{2-x}{x+1} \right = 4$	$x_1 = -2; x_2 = -\frac{2}{5}$
43	$\left \frac{x+1}{x-2} + \frac{2x}{x+2} - 3 \right = 0$	$x = 14$
44	$5 - \frac{ 8+x }{x} = 3$	$x_1 = 8; x_2 = -\frac{8}{3}$
45	$2 + \left 1 - \frac{1}{x} \right = 1$	<i>impossibile</i>
46	$6 - \left \frac{3x}{x+1} \right = 2$	$x_1 = -4; x_2 = -\frac{4}{7}$
47	$\left \frac{6-12x}{2-x} \right = 4$	$x_1 = -\frac{1}{4}; x_2 = \frac{7}{8}$
48	$\left \frac{2x}{2+x} \right - 2 = 0$	$x = -1$
49	$\left \frac{2}{x+2} \right + 3 = 4$	$x_1 = -4; x_2 = 0$
50	$\left \frac{x+3}{x-1} \right = 2$	$x_1 = 5; x_2 = -\frac{1}{3}$
51	$\left \frac{x^2 - x - 6}{x+1} \right = x - 3$	$x = 3$
52	$\left \frac{x^2 + 3x}{2} \right = x + 6$	$x_1 = -4; x_2 = 3$
53	$\frac{ x^2 - 4 - 3x}{x-1} = x + 1$	<i>impossibile</i>
54	$1 + \left 1 + \frac{1}{x} \right = 4$	$x_1 = \frac{1}{2}; x_2 = -\frac{1}{4}$
55	$\left \frac{x-1}{x} + 1 \right = \frac{5}{2}$	$x_1 = -2; x_2 = \frac{2}{9}$
56	$\left \frac{4}{x} - 2 \left(1 - \frac{1}{x} \right) \right = 10$	$x_1 = -\frac{3}{4}; x_2 = \frac{1}{2}$
57	$ x = 2 x+3 $	$x_1 = -6; x_2 = -2$
58	$ x^2 - 5x + 6 = x - 3 $	$x_1 = 1; x_2 = 3$

59	$3 x^2 - 1 - 4x = 2 x + 4 - 1$	$x_{1,2} = \frac{3 \pm \sqrt{39}}{3}$
60	$ x^4 - 4x^3 = -3 x $	$x = 0$
61	$ x^2 - x = x + x + 1 $	$x_{1,2} = \frac{3 \pm \sqrt{13}}{2}$
62	$2 x - 1 = x - \frac{1}{3} + 2 - x $	$x_1 = \frac{1}{6}; x_2 = \frac{11}{6}$
63	$ x - x^2 + 3 = x - 3 $	$x_1 = 0; x_2 = 2$
64	$x^2 - x - 3 + 1 - x - 2 = 0$	$x_{1,2} = -1 \pm \sqrt{5}$
65	$2 x - 1 - 2 = 4 x $	$x = 0$
66	$2x -x - 3 - 6x = 10 - x $	$x_1 = \frac{-13 - \sqrt{89}}{4};$ $x_2 = -2; x_3 = 2;$
67	$4 - 5 x - 1 = 1 - 2 x + 2 $	$x_1 = -\frac{2}{7}; x_2 = 4$
68	$2x + x^2 + x = x^2 - 1 - 1$	$x = 0$
69	$2 x^2 - 1 + 1 = x^2 - 8 $	$x_1 = -\sqrt{3}; x_2 = \sqrt{3}$
70	$ x^2 - 4 + x - 2 = x + 1 $	$x_1 = \sqrt{6} - 1; x_2 = \sqrt{7}$
71	$ x - 4 + x + 5 = 3x - 2 $	$x_1 = -7; x_2 = \frac{11}{5}$
72	$ x^2 - 1 - 2 x - 1 = 1 - x - 3x$	$x_1 = -3 - \sqrt{13};$ $x_2 = 3 - \sqrt{7}$
73	$ x^2 + 1 - 3x - 4x^2 - 5 = 0$	$x_1 = -2; x_2 = 1;$ $x_{3,4} = \frac{3 \pm \sqrt{89}}{10}$
74	$ x^2 - 3 + 3x = x - 1 + 2 + -x $	$x_1 = -6; x_2 = 0$
75	$\left \frac{1 - 3x}{x} \right = \left \frac{4 - x^2}{x^2} \right $	$x_{1,2} = \frac{1 \pm \sqrt{65}}{8}$
76	$\frac{ x - 3 }{1 - x} = \frac{1 - x}{ x }$	$x_{1,2} = \frac{5 \pm \sqrt{17}}{4}$ $x_3 = -1$
77	$\left \frac{-x^2 + 2x}{x - 1} \right = x $	$x_1 = 0; x_2 = \frac{3}{2}$

78	$ x^2 - x - 2 - x = \frac{1}{2} x - 1 $	$x_1 = -1; x_2 = 3$ $x_{3,4} = \frac{-1 + \sqrt{41}}{4}$
79	$\frac{ x^2 + 3 }{ x - 1 } - x - 2 = 0$	$x = -\frac{1}{3}$
80	$3 x + 2 - x x + 3 = x$	$x = 2$
81	$ 3x - 2 - 4 - x = 5 + 2x - 3 $	$x = 4$
82	$ x^2 - 3x + 2 + x + 1 = x + 7 $	$x_1 = \frac{5 - \sqrt{41}}{2}; x_2 = 4$
83	$\frac{ x - 3}{ x + 1 - 5} = -3$	$x_1 = -\frac{21}{4}; x_2 = \frac{15}{4}$
84	$\frac{ 2x + 3 - 1}{ x + 1} = -\frac{1}{4}$	$x_1 = -\frac{9}{7}; x_2 = -\frac{5}{3}$
85	$\frac{x^2}{ x - 1 } + 2x = x + 1 $	$x = \frac{1}{2}$
86	$\frac{ x^2 + 3 }{ x - 1 } - x - 2 = 0$	$x = -\frac{1}{3}$
87	$\frac{ x - 3 - x^2 - 1 }{ 2 - x + 1} = -2$	$x_1 = -5; x_2 = 2$
88	$\left \frac{1}{3}x - 3 \right = \left(2 + \frac{1}{3}x \right) - 5 \left \frac{2}{3} + x \right $	$\nexists x \in \mathbb{R}$
89	$ -3x + 3 = - x - 5 $	$\nexists x \in \mathbb{R}$
90	$\left \frac{x^2 - 1}{x} \right = 3 - \frac{2 - 2x^2 + x + 3 + x}{x}$	$x = -1$
91	$\frac{6 + \left x - \frac{1}{2} \right }{ x - 5 } - 4 = 0$	$x = \frac{17}{2}, x = \frac{29}{10}$
92	$2 \frac{ 3x - 2 - 1}{5} = 3 x - 3 $	$x = \frac{13}{3}, x = \frac{17}{7}$
93	$ x - 3 + x - 3 = 1$	$x = \frac{7}{2}$