

ESERCIZI IN PIÙ**LE EQUAZIONI CON VALORI ASSOLUTI**

Risolvi le seguenti equazioni in cui compaiono valori assoluti.

$$1 \quad \frac{3x+2}{\left|x+\frac{2}{3}\right|} - \frac{50}{|x+3|} + |x| + 5 = 0 \quad [-8; 2]$$

$$2 \quad \frac{|1-24x|+11}{x^2+3|x|-10} - x + |x-1| = 0 \quad \left[\frac{21+\sqrt{521}}{2}\right]$$

$$3 \quad 30 \frac{|x|+2}{|x^2-x|-2} - \frac{44}{|x-1|-1} + 1 = 0 \quad [-11; -4; 1; 14]$$

$$4 \quad \frac{1}{|x-2|+x} - \frac{x+6}{|x^2-4|+3x} + \frac{2}{|x+2|+x} = 0 \quad \left[0; \frac{3+\sqrt{73}}{2}\right]$$

$$5 \quad \frac{3(2+|x|)}{(x+1)^2+|x+1|} + \frac{2(1+|x|)-x}{|x+1|+1} - \frac{8|x-2|}{|x+1|-2x-2} = 0 \quad [-5 \pm \sqrt{13}]$$

$$6 \quad |x^2-7x+12| + (x-1)|x+4| = x+6 \quad \left[\frac{1}{2}; 2\right]$$

$$7 \quad |x^2+4x| + |x| + |x+4| = -2x+1 \quad [-5; -3]$$

$$8 \quad \frac{x-3}{|x^2-2x|-3} = \frac{3(x+1)}{x^2+|2x+3|} \quad [-3; 0; 1]$$

$$9 \quad \left|\frac{x-3}{x+1} - \frac{x+1}{x+3}\right| + \frac{1}{|x+1|} - \frac{1}{|x+3|} = 0 \quad [-6; -4]$$

$$10 \quad \left|2 + \frac{x+3}{x-4}\right| + \frac{x-4}{|x-1|} = \frac{|x|-11}{x^2-5x+4} \quad \left[\pm \frac{1}{2}; 0; \frac{-1+\sqrt{177}}{4}\right]$$