

## Equazioni di primo grado con moduli

### Esercitazione proposta

Risolvere le seguenti equazioni di primo grado.

1.  $|6x-1|=3$

$$S = \left\{ -\frac{1}{3}; \frac{2}{3} \right\}$$

2.  $|3x-1|=5-x$

$$S = \left\{ -2; \frac{3}{2} \right\}$$

3.  $\left| x + \frac{1}{2} \right| = \frac{1}{2}$

$$S = \{-1; 0\}$$

4.  $2 \cdot \left| x - \frac{1}{2} \right| = x - 1$

$$S = \emptyset$$

5.  $|3-x| = \frac{3}{2}x - 2$

$$S = \{2\}$$

6.  $0,5\bar{x} - |0,1\bar{2} - x| = x$

$$S = \emptyset$$

7.  $|3+x| - 2 \cdot |1-x| = 4x$

$$S = \left\{ \frac{1}{2}; 1 \right\}$$

8.  $\frac{3}{2} \cdot (4x-1) - \left| \frac{x}{4} - 2 \right| = \frac{1}{2} \cdot |3x-6|$

$$S = \left\{ \frac{26}{31} \right\}$$

9.  $2 \cdot \left( -\frac{x}{6} + 1 \right) - |2-x| = \frac{1}{3} \cdot |2x-3|$

$$S = \left\{ \frac{3}{4}; \frac{5}{2} \right\}$$

10.  $\left( \frac{1}{3} - \frac{3}{4} \right) \cdot |x-1| = -\frac{5}{2} \cdot |x+1| + 5x$

$$S = \{1\}$$

11.  $9 \cdot \left( \frac{x+1}{3} + \frac{1}{6} \right) - \left| \frac{x}{2} - 2 \right| = 2 \cdot |x-4|$

$$S = \{1\}$$

12.  $2 \cdot |4x - |2x-5|| = x$

$$S = \left\{ \frac{10}{13}; \frac{10}{11} \right\}$$

13.  $x - \frac{1}{2} \cdot |6 - |3x-2|| = -2$

$$S = \left\{ -\frac{8}{5}; 0; \frac{4}{5}; 12 \right\}$$