

**Problema:** *EQ0038* - Algebra letterale

**Testo** [\[EQ0038\]](#) [1 ★ 2 ⌚ 1 📖] Risolvi le seguenti equazioni di secondo grado

- (a)  $x^2 + 3x + 2 = 0$ ;      $2x^2 - 3x - 1 = 0$ ;      $x^2 + x + 1 = 0$

(b)  $x^2 + 2\sqrt{2}x - 2 = 0$ ;      $3x^2 - 5x - 2 = 0$ ;      $-x^2 - 3x + 5 = 0$ ;

(c)  $x^2 - 5x + 6 = 0$ ;      $x^2 - 6x + 7 = 0$ ;      $4x^2 + 4x + 1 = 0$

(d)  $x^2 - 8x + 15 = 0$ ;      $2x^2 + x - 5 = 0$ ;      $x^2 + 2x + 5 = 0$

(e)  $3x^2 - 7x + 2 = 0$ ;      $5x^2 - 2x = 0$ ;      $x^2 + 10x + 25 = 0$
- (f)  $4x^2 - 3x - 1 = 0$       $x^2 + 5x - 3 = 0$ ;      $2x^2 - 18 = 0$ ;

(g)  $6x^2 - 5x + 1 = 0$ ;      $5x^2 + x - 1 = 0$ ;      $x^2 + 10x + 25 = 0$

(h)  $2x^2 - 5x + 3 = 0$ ;      $x^2 + 3x + 1 = 0$ ;      $3x^2 + 2x + 1 = 0$

(i)  $x^2 - 12x + 1 = 0$ ;      $x^2 - 2x - 2 = 0$ ;      $2x^2 + x - 15 = 0$

## Spiegazione

**Svolgimento** Qui di seguito le soluzioni degli esercizi proposti

(a) [...].

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(b)  $x = -\sqrt{2} \pm 2; x_1 = 2, \quad x_2 = -\frac{1}{3}; x_{1,2} = \frac{-3 \pm \sqrt{29}}{2}.$

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(c)  $x_1 = 2, \quad x_2 = 3; x_{1,2} = 3 \pm \sqrt{2}; x = -\frac{1}{2}.$

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(d)  $x_1 = 3, \quad x_2 = 5; x_{1,2} = \frac{-1 \pm \sqrt{41}}{4}; \nexists x \in \mathbb{R}.$

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(e)  $x_1 = 2, \quad x_2 = \frac{1}{3}; x_1 = 0, \quad x_2 = \frac{2}{5}; x_{1,2} = -5.$

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(f)  $x_1 = 1, \quad x_2 = -\frac{1}{4}; x_{1,2} = \frac{-5 \pm \sqrt{37}}{2}; x_{1,2} = \pm 3; .$

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(g)  $x_1 = \frac{1}{2}, \quad x_2 = \frac{1}{3}; x_{1,2} = \frac{-1 \pm \sqrt{21}}{10}; x_{1,2} = -5.$

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(h)  $x_1 = \frac{3}{2}, \quad x_2 = 1; x_{1,2} = \frac{-3 \pm \sqrt{5}}{2}; \nexists x \in \mathbb{R}.$

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(i)  $x_{1,2} = 6 \pm \sqrt{35}; x_{1,2} = 1 \pm \sqrt{3}; x_1 = \frac{5}{2}, \quad x_2 = -3;.$

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