

Problema: *EQ0041* - **Algebra letterale**

Testo [\[EQ0041\]](#) [1½★ 2🕒 2📖] Risolvi le seguenti equazioni biquadratiche

(a) $x^4 - 5x^2 + 4 = 0$; $x^4 - 3x^2 - 4 = 0$;

(b) $x^4 - 5x^2 + 6 = 0$; $x^4 + 5x^2 + 4 = 0$;

(c) $x^4 - 5x^2 + 4 = 0$; $x^4 - 13x^2 + 36 = 0$

(d) $x^4 - 5x^2 + 6 = 0$; $x^4 - 8x^2 + 15 = 0$

(e) $x^4 - 7x^2 + 10 = 0$; $x^4 - 10x^2 + 9 = 0$

(f) $x^4 - 3x^2 - 4 = 0$; $x^4 - 8x^2 - 9 = 0$

(g) $x^4 + 5x^2 + 4 = 0$; $x^4 + 13x^2 + 36 = 0$

(h) $x^4 - 9x^2 = 0$; $x^4 + 4x^2 = 0$

(i) $x^4 - 16 = 0$; $x^4 - 1 = 0$

(j) $2x^4 - 3x^2 + 1 = 0$; $4x^4 - 5x^2 + 1 = 0$

(k) $x^4 - 4x^2 + 2 = 0$; $x^4 - 6x^2 + 1 = 0$

(l) $x^4 - 2x^2 - 8 = 0$; $2x^4 - 20x^2 + 18 = 0$

Spiegazione

Svolgimento Qui di seguito le soluzioni degli esercizi proposti

(a) $S = \{-2, -1, 1, 2\}; S = \{-3, 3\}.$

(b) $S = \{-\sqrt{3}, -\sqrt{2}, \sqrt{2}, \sqrt{3}\}; S = \emptyset.$

(c) $S = \{-2, -1, 1, 2\}; S = \{-3, -2, 2, 3\}.$

(d) $S = \{-\sqrt{3}, -\sqrt{2}, \sqrt{2}, \sqrt{3}\}; S = \{-\sqrt{5}, -\sqrt{3}, \sqrt{3}, \sqrt{5}\}.$

(e) $S = \{-\sqrt{5}, -\sqrt{2}, \sqrt{2}, \sqrt{5}\}; S = \{-3, -1, 1, 3\}.$

(f) $S = \{-2, 2, -i, i\}; S = \{-3, 3\}.$

(g) $S = \emptyset; S = \emptyset.$

(h) $S = \{-3, 0, 3\}; S = \{0\}.$

(i) $S = \{-2, 2\}; S = \{-1, 1\}.$

(j) $S = \left\{-1, 1, -\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2}\right\}; S = \left\{-1, 1, -\frac{1}{2}, \frac{1}{2}\right\}.$

(k) $S = \left\{-\sqrt{2+\sqrt{2}}, \sqrt{2+\sqrt{2}}, -\sqrt{2-\sqrt{2}}, \sqrt{2-\sqrt{2}}\right\}; S = \{-(\sqrt{2}+1), \sqrt{2}+1, -(\sqrt{2}-1), \sqrt{2}-1\}.$

(l) $S = \{-2, 2\}; S = \{-3, -1, 1, 3\}.$

4.2 sistemi di equazioni