

$$114 \begin{cases} 3x(1-x) - 1 \geq (2x-1)(2x+1) \\ (x-1)^2 - (3x+2)^2 + 3[4+(x-3)] \geq 0 \\ 25 - x^2 > 0 \end{cases}$$

$$[x = 0]$$

4.10

4.17

$$115 \begin{cases} x^3 + 27 > 0 \\ x^6 - 7x^3 - 8 < 0 \\ 3x + 2 < 0 \end{cases}$$

$$\left[-1 < x < -\frac{2}{3}\right]$$

Risolvere le seguenti disequazioni nelle quali compaiono dei valori assoluti:

$$116 \quad |x^2 + 1| \geq 10$$

$$[x \leq -3, \quad x \geq 3]$$

$$117 \quad |x^2 + 10| > 1$$

$$[\text{ogni valore di } x]$$

$$118 \quad |x^2 + x| > 2$$

$$[x < -2, \quad x > 1]$$

$$119 \quad |x^2 - 5x| > 6 \quad [x > -1, \quad 2 < x < 3, \quad x > 6]$$

$$120 \quad |x^2 - 2x| < 3$$

$$[-1 < x < 3]$$

$$121 \quad |2x^2 + 3x - 8| > -2 \quad [\text{ogni valore di } x]$$

$$122 \quad |5 - x^2 + x| < -4$$

$$[\text{nessuna soluzione}]$$

$$123 \quad \left| \frac{x-8}{x^2+1} \right| > 5$$

$$\left[ \frac{-1 - \sqrt{61}}{10} < x < \frac{-1 + \sqrt{61}}{10} \right]$$

$$124 \quad |x-2| > x^2$$

$$[-2 < x < 1]$$

$$125 \quad |x+1| < x^2 + 1$$

$$[x < 0, \quad x > 1]$$

$$126 \quad \left| \frac{x^2+4}{x} \right| > 5$$

$$[x < -4, \quad -1 < x < 0, \quad 0 < x < 1, \quad x > 4]$$

$$127 \quad \frac{|x^2 - 5x| - 6}{8 - x} > 0$$

$$[x < -1, \quad 2 < x < 3, \quad 6 < x < 8]$$

$$128 \quad \left| \frac{x^2 + 8x}{x-3} \right| < 48$$

$$[-28 - 4\sqrt{58} < x < -28 + 4\sqrt{58}, \quad 4 < x < 36]$$

$$129 \quad \frac{|x^3 - 3x^2|}{x+1} \leq 0$$

$$[x < -1, \quad x = 0, \quad x = 3]$$

$$130 \quad \frac{|x^3| - 27}{2x-5} > 0; \quad \frac{|x^5| - 1}{16 - x^2} > 0$$

$$[-3 < x < \frac{5}{2}, \quad x > 3; \quad -4 < x < -1, \quad 1 < x < 4]$$

$$131 \quad \frac{|x-5| - 4}{|x+1| - 2} \leq 0$$

$$[-3 < x < 1; \quad 1 < x \leq 9]$$

$$132 \quad \frac{|x^2 + 2x| - 3}{(x+2)^4 - 16} > 0$$

$$[x < -4; \quad -3 < x < 0; \quad x > 1]$$