

Esercizi sulle disequazioni di secondo grado, di grado superiore e fratte

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| 1) $x^2 - x - 12 > 0$ | $S =]-\infty; -3[\cup]4; +\infty[$ |
| 2) $2x^2 + x - 3 \leq 0$ | $S = \left[-\frac{3}{2}; 1\right]$ |
| 3) $x^2 + x + 3 < 0$ | $S = \emptyset$ |
| 4) $(2x-1)^2 - 4(2x+3)^2 \geq 0$ | $S = \left[-\frac{7}{2}; -\frac{5}{6}\right]$ |
| 5) $x(3-x) - 4x^2 + 36 < 0$ | $S = \left]-\infty; -\frac{12}{5}\right[\cup]3; +\infty[$ |
| 6) $(2+x)^2 + (3x-1)^2 < 0,$ | $S = \emptyset$ |
| 7) $x^2 - 4x \geq 0$ | $S =]-\infty; 0] \cup [4; +\infty[$ |
| 8) $\frac{1}{2}x^2 - x + 5 > 0$ | $S = \mathbb{R}$ |
| 9) $(2+x)(x-2) - 9x \leq 0$ | $S = \left[\frac{9-\sqrt{97}}{2}; \frac{9+\sqrt{97}}{2}\right]$ |
| 10) $\left(x - \frac{1}{2}\right)^2 - 4\left(x + \frac{1}{2}\right)^2 \geq 0$ | $S = \left[-\frac{3}{2}; -\frac{1}{6}\right]$ |
| 11) $x^2(5x-1)(2x+1) \geq 0$ | $S = \left]-\infty; -\frac{1}{2}\right[\cup \{0\} \cup \left[\frac{1}{5}; +\infty\right[$ |
| 12) $\frac{x-1}{x(x+2)} > 0$ | $S =]-2; 0[\cup]1; +\infty[$ |
| 13) $\frac{1}{x} - \frac{2}{x-3} \leq 0$ | $S = [-3; 0[\cup]3; +\infty[$ |
| 14) $(x^2 + 4)(x^2 - 4x) < 0$ | $S =]0; 4[$ |
| 15) $(x^3 - x)(2+x) \geq 0$ | $S =]-\infty; -2] \cup [-1; 0] \cup [1; +\infty[$ |
| 16) $(x^3 + 4x)(x-1)^2 > 0$ | $S =]0; 1[\cup]1; +\infty[$ |
| 17) $(x-5):(x+2) < \frac{2}{x+2}$ | $S =]-2; 7[$ |
| 18) $\frac{x^2 - 4x - 5}{2x^2 - x} \geq 0$ | $S =]-\infty; -1] \cup \left]0; \frac{1}{2}\right[\cup [5; +\infty[$ |
| 19) $\frac{1}{x} - \frac{2}{x^2} - \frac{3}{x^3} < 0$ | $S =]-\infty; -1[\cup]0; 3[$ |
| 20) $\frac{2-x-x^2}{x^2-x+1} \leq 0$ | $S =]-\infty; -4] \cup [2; +\infty[$ |