

Esercizi sulle disequazioni

1. $3x^2 > 0$ [$\forall x \neq 0$]
2. $\sqrt{2x^2 + 1} < 0$ [nessuna soluzione]
3. $9 - 4x^2 \leq 0$ [$x \leq -\frac{3}{2}$ e $x \geq \frac{3}{2}$]
4. $x^2 - 6x + 5 > 0$ [$x < 1$ e $x > 5$]
5. $x^2 - 5x + 6 \geq 0$ [$x \leq 2$ e $x \geq 3$]
6. $3 - x^2 + 2x \geq 0$ [$-1 \leq x \leq 3$]
7. $x^2 - 6x + 9 \leq 0$ [$x = 3$]
8. $\frac{x^2 - 1}{x} > 0$ [$-1 < x < 0$ e $x > 1$]
9. $\frac{x^2 + 2x - 3}{4 - x^2} \geq 0$ [$-2 \leq x < -2$ e $1 \leq x < 2$]
10. $\frac{x^2 - 2x}{x} \leq 0$ [$x < 0$ e $0 < x \leq 2$]
11. $\frac{2x^2 + 3x + 4}{x^2 - 9} > 0$ [$x < -3$ e $x > 3$]
12. $\frac{2-x}{3} > \frac{1}{2+x}$ [$x < -2$ e $-1 < x < 1$]
13. $\frac{1}{x+1} > \frac{1}{x-3}$ [$-1 < x < 3$]
14. $\frac{(16-x^2)(x+3)}{x^2-2x} \geq 0$ [$x \leq -4$; $-3 \leq x < 0$; $2 < x \leq 4$]
15. $\frac{(30+13x-3x^2)(1-x)}{2x^2-3x-5} < 0$ [$x < -6$; $-1 < x < 1$; $\frac{5}{3} < x < \frac{5}{2}$]
16. $\begin{cases} (2x+7)^2 > 0 \\ x+1 \geq 0 \\ x^2-6 > 0 \end{cases}$ [$x > \sqrt{6}$]
17. $\begin{cases} \frac{x^2+1}{9-x^2} > 0 \\ 10-x^2-3x \geq 0 \end{cases}$ [$-3 < x \leq 2$]
18. $\begin{cases} \frac{3-x}{x^2+2x+1} \geq 0 \\ x^2-4x+3 \geq 0 \end{cases}$ [$x < -1$, $-1 < x \leq 1$ e $x = 3$]
19. $\begin{cases} \frac{x^2-3x}{x+1} > 0 \\ 5x-x^2-6 \geq 0 \end{cases}$ [nessuna soluzione]