VERO O FALSO

11 $\sqrt{x+1} > -1$ è una disequazione impossibile. V F

12 $1+\sqrt{x} < 0 \longrightarrow$ impossibile. V F ; $\sqrt{x} \geq 0 \longrightarrow \forall x$. V F

13 $\sqrt{x} \geq 2 \longrightarrow x \geq 4$. V F ; $\sqrt{x} \leq 2 \longrightarrow 0 \leq x \leq 4$. V F

14 $\sqrt{x} < \sqrt{7} \longrightarrow x < 7$. V F ; $\sqrt{1+x^2} > 0 \longrightarrow \forall x \in R$. V F

15 $\sqrt{x-1} < 5 \longrightarrow x < 6$. V F ; $\sqrt{x-1} > 5 \longrightarrow x > 6$. V F

16 $\sqrt{x^2+7} > \sqrt{x^2+6} \longrightarrow \forall\, x \in R$. V F ; $\sqrt[4]{x-1} > -1 \longrightarrow x \geq 1$. V F

17 $\sqrt[3]{1+x} > 1 \longrightarrow x \geq 0$. V F ; $\sqrt[3]{4-x} < 2 \longrightarrow x > 4$. V F

18 $-1 < \sqrt[3]{2-x} \longrightarrow x < 3$. V F ; $\sqrt[6]{4-x^2} < \sqrt[3]{2} \longrightarrow x \neq 0$. V F

Risolvere le seguenti disequazioni irrazionali:

19 $\sqrt{x+3} < 4$; $\sqrt{2x+1} > 3$; $\sqrt{x-2}+2 > 0$. $[-3 \leq x < 13;\ x > 4;\ x \geq 2]$

20 $\sqrt{3x-2} > -2$; $1 \leq \sqrt{x+2}$; $\sqrt{3+2x} > 1$. $\left[x \geq \frac{2}{3};\ x \geq -1;\ x > -1\right]$

21 $\sqrt{x-1} - \frac{1}{4} < 0$; $1 - \sqrt{1-x} > 0$. $\left[1 \leq x < \frac{17}{16};\ 0 < x \leq 1\right]$

22 $\sqrt{x^2-9}+3 > 0$; $\sqrt{x^2-4} < -3$. $[x \leq -3 \vee x \geq 3;$ impossibile$]$

23 $\sqrt{x^2+x+25} < 4$; $\sqrt{x^3-x}+4 < 0$. [impossibile; impossibile]

24 $3+\sqrt{2-3x} > 0$; $\sqrt[3]{2-x} < 1$. $\left[x \leq \frac{2}{3};\ x > 1\right]$

25 $3 - \sqrt[3]{2+x^2} > 0$; $\sqrt[4]{2-x} < 1$. $[-5 < x < 5;\ 1 < x \leq 2]$

26 $\sqrt[3]{2x-1} < 1$; $\sqrt[5]{1-x^2} \leq 1$. $[x < 1;\ \forall x \in R]$

27 $\sqrt[n]{3x^2+1} > 1$; $\sqrt[n]{1-x^2} > 1$ $(n \in N_0)$. $[x \neq 0:$ nessun valore di $x]$

28 $\sqrt[2n]{2x-5} < 1$; $\sqrt[2n+1]{2x-5} < 1$ $(n \in N_0)$. $\left[\frac{5}{2} \leq x < 3;\ x < 3\right]$

29 $\sqrt{x^2-5x}+1 > \frac{1}{2}$; $4\sqrt{x-3} < 3$. $\left[x \leq 0 \vee x \geq 5;\ 3 \leq x < \frac{57}{16}\right]$

30 $\sqrt[5]{2-x} < 1$; $\sqrt[4]{(x-3)^2} < -2$. $[x > 1:$ impossibile$]$

31 $3 > \sqrt[3]{2+x^2}$; $\sqrt[7]{x^4+1} > \sqrt[7]{-10}$. $[-5 < x < 5;\ \forall\, x \in R]$

32 $\sqrt{\frac{1-x}{2+x}} \geq 0$; $\sqrt{\frac{x-3}{x+4}} > 0$; $\sqrt[3]{\frac{1-x}{1+x^2}} > -1$. $[-2 < x \leq 1;\ x < -4 \vee x > 3;\ \forall x \in R]$