$$\sqrt{3a^2b}$$

$$\sqrt[6]{9a^6b^3} =$$

$$\sqrt[6]{3^2a^6b^3}$$

$$\sqrt[4]{3^2a^6b^4} =$$

$$= \sqrt{3a^3b^2}$$

$$\sqrt[4]{25a^2b^4} =$$

$$= \sqrt[4]{5^2a^2b^4} = \sqrt{5ab^2}$$

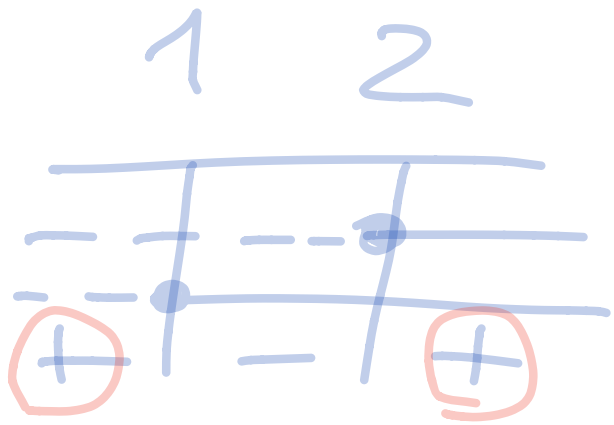
$$\frac{\sqrt{x^2-3x+2}}{\sqrt[3]{4-x}}$$

$$\begin{cases} x^2-3x+2 \geq 0 \\ 4-x \neq 0 \end{cases}$$

$$\begin{cases} (x-2)(x-1) \geq 0 \\ x \neq 4 \end{cases}$$

$1^\circ f.: x \geq 2$

$2^\circ f: x \geq 1$



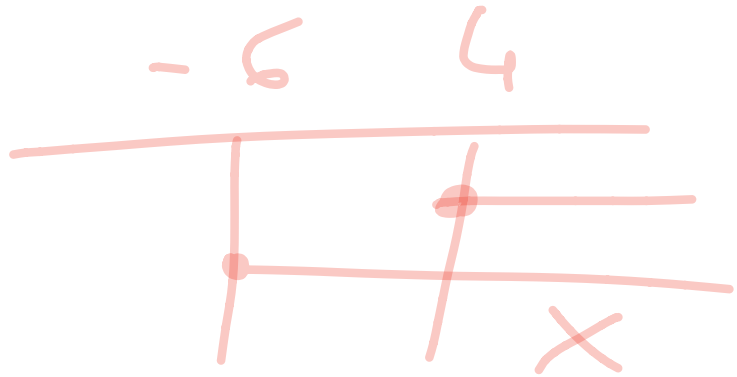
$$\begin{cases} x \leq 1 \vee x \geq 2 \\ x \neq 4 \end{cases}$$

$$C.E. = (-\infty, 1] \cup [2; +\infty) - \{4\}$$

$$C.E. = (-\infty, 1] \cup [2; 4) \cup (4; +\infty)$$

$$\sqrt{x-4}+\sqrt{x+6}$$

$$\begin{cases} x-4\geq 0 \\ x+6\geq 0 \end{cases} \qquad \begin{cases} x\geq 4 \\ x\geq -6 \end{cases}$$



$$\sqrt[3]{\frac{x^3}{1-x^2}}$$

$$1-x^2\neq 0$$

$$(1-x)(1+x)\neq 0 \; ; \; x\neq \pm 1$$

$\left(\sqrt{-16}\right)^2$ non si può

$$\left(-\sqrt{16}\right)^2 = \left(-\sqrt{16}\right)\left(-\sqrt{16}\right) =$$

$$= +\sqrt{16^{\cancel{2}}} = +16$$

$$\sqrt{(-8)^2} = \sqrt{64} = 8$$

$$a^n = b^n \iff a = b$$

$$\sqrt[5]{-1} \qquad \sqrt[3]{-8} = -2$$

$$\sqrt{ab} \qquad \sqrt[3]{a^3b^6} = ab^2$$

$$\sqrt{(-8)^2} = \sqrt{|-8|^2} = |-8| = 8$$

$$\sqrt[4]{a^2} = \sqrt{|a|}$$

$a < 0$ e m/p pari

$$\sqrt[mp]{a^{mp}} = \sqrt[m]{|a|^m}$$

$$\sqrt[8]{(-2)^4} = \sqrt[4]{|-2|^2}$$

$$\sqrt[4]{a^2b^4} = \sqrt{|a|b^2}$$

$$\sqrt[4]{16(a-1)^2} = \sqrt{4|a-1|}$$

$$\sqrt{(a^2+1)^2} = |a^2+1| = a^2+1$$

$$\sqrt{(a+1)^2} = |a+1|$$