

ECUACIONES

$$1. \frac{2}{x+\sqrt{2-x^2}} + \frac{2}{x-\sqrt{2-x^2}} = x$$

$$2. \sqrt{2+\sqrt{x-5}} = \sqrt{13-x}$$

$$3. x^{-\frac{1}{2}} + x^{-1} = 110$$

$$4. \sqrt{3x-6} + \sqrt{2x+6} = \sqrt{9x+4}$$

$$5. \frac{2\sqrt{x}}{6-\sqrt{x}} + \frac{6-\sqrt{x}}{2\sqrt{x}} = \frac{5}{2}$$

$$6. \frac{x}{1-\frac{1}{x+\frac{1}{2}}} = \frac{1}{12}$$

$$7. \sqrt{4+\sqrt{16x^2+8x^3+x^4}} = 2$$

$$8. 2x^3 - \sqrt{x^3} = 120$$

$$9. 2\sqrt{\frac{1}{5}x-2} = 2 + \sqrt{\frac{1}{6}x-1}$$

$$10. x^8 - x^4 - 240 = 0$$

$$11. \frac{1}{\sqrt{5+x}-\sqrt{5-x}} + \frac{1}{\sqrt{5+x}+\sqrt{5-x}} = \frac{3}{4}$$

$$12. \sqrt{x^2+x+4} = 2 + \sqrt{x^2-2x+1}$$

$$13. \sqrt{x^3-8x^2+x-14} - \frac{1}{2}\sqrt{4x^3-30x^2-20x-16} = 0$$

$$14. \sqrt[4]{5x^2+3x-11} = \sqrt{4x-7}$$

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1. $\frac{3x-1}{2x+5} \leq 0$

2. $\frac{3x-1}{2x+5} \geq 0$

3. $\frac{2x}{x^2+1} < 0$

4. $\frac{25}{x^2-1} \leq 0$

5. $\frac{4}{x^2-9x+18} \geq 0$

6. $\frac{2x}{x^2+1} < 1$

7. $\frac{5-2x}{3x-9} < 1$

8. $\frac{x^2+1}{5x} \leq \frac{1}{2}$

9. $\frac{x-5}{x} + 5 \geq x$

10. $\frac{x-1}{x+1} > \frac{x+1}{x-1}$

11. $\frac{x^2-6}{2x+3} < 0$

12. $x(3x-1)(x+2) < 0$

13. $x^3 - 6x^2 + 11x - 6 \geq 0$

14. $x^4 - 5x^2 + 4 \geq 0$

15. $\frac{x^2-8x+15}{x^2-4} < 0$