

 +  1  
297

-3

 +  2  
300

$$t^4 - \frac{5}{4}t^2 + \frac{1}{4} = 0$$

$$4t^4 - 5t^2 + 1 = 0$$

$$t^2 = \frac{5 \pm \sqrt{25 - 16}}{8} = \frac{5 \pm 3}{8} = \begin{cases} t^2 & t \\ 1/4 \pm \sqrt{1/4} = \boxed{\pm 1/2} \\ 1 \pm \sqrt{1} = \boxed{\pm 1} \end{cases}$$

 +  3  
301

$$\frac{8}{x^2 - 5} - 2 = \frac{(x-3)(x+3)}{x^2 - 1}$$

multiplicando ambos miembros por  $(x^2 - 5)(x^2 - 1)$  resulta:

$$8(x^2 - 1) - 2(x^2 - 5)(x^2 - 1) = (x^2 - 5)(x - 3)(x + 3)$$

$$8x^2 - 8 - 2x^4 + 12x^2 - 10 = x^4 - 14x^2 + 45$$


$$-3x^4 + 34x^2 - 63 = 0$$

$$3x^4 - 34x^2 + 63 = 0$$

$$x^2 = \frac{34 \pm \sqrt{34^2 - 756}}{6} = \frac{34 \pm \sqrt{400}}{6} = \frac{34 \pm 20}{6} = \begin{cases} \frac{14}{6} = \frac{7}{3} \\ 9 \end{cases}$$

$$x^2 = \frac{7}{3}; x = \pm \sqrt{\frac{7}{3}} = \boxed{\pm \frac{\sqrt{21}}{3}}$$


$$x^2 = 9; \boxed{x = \pm 3}$$

 +  4  
302


6

 +  5  
304

5

 +  6  
305

13/9

 +  7  
311

$$\frac{3}{x+4} - \frac{1}{1-x} + \frac{7+5x}{(x+4)(1-x)} = 0$$

$$\frac{3(1-x) - (x+4) + 7+5x}{(x+4)(1-x)} = 0$$

$$\frac{x+6}{(x+4)(1-x)} = 0; \boxed{x = -6}$$



+

8  
299

$$x^4 - 29x^2 + 100 = 0$$

$$x^2 = \frac{29 \pm \sqrt{29^2 - 4 \times 100}}{2} = \frac{29 \pm 21}{2} = \begin{cases} 4 \\ 25 \end{cases}$$

$$x^2 = 4 \Rightarrow x = \pm \sqrt{4} = \pm 2$$

$$x^2 = 25 \Rightarrow x = \pm \sqrt{25} = \pm 5$$

soluciones 

+

9  
1182

$$0$$



+

10  
1183

$$-47/24$$



+

11  
1334

$$\frac{x+1}{x-1} + \frac{3}{x+1} - \frac{x-2}{x^2-1} = 0$$

$$\frac{(x+1)^2 + 3(x-1) - (x-2)}{(x+1)(x-1)} = 0$$

$$x^2 + 2x + 1 + 3x - 3 - x + 2 = 0$$

$$x^2 + 4x = 0$$

$$x(x+4) = 0 \Rightarrow \begin{cases} x_1 = 0 \\ x_2 = -4 \end{cases}$$



+

12  
1337

$$\frac{1-x}{x+3} + \frac{2x}{x-2} = \frac{x^2+5(x-2)}{x^2+x-6}$$

$$\frac{(1-x)(x-2) + 2x(x+3)}{(x+3)(x-2)} = \frac{x^2+5x-10}{(x+3)(x-2)}$$

$$-x^2 + 3x - 2 + 2x^2 + 6x = x^2 + 5x - 10$$

$$4x = -8 ; \quad \boxed{x = -2}$$



+

13  
4129

$$\frac{3x}{2x+x^2} - \frac{1}{x} + \frac{4}{2+x} = 0$$

$$\frac{3x - (2+x) + 4x}{x(2+x)} = 0$$

$$\frac{6x-2}{x(2+x)} = 0 ; \quad 6x - 2 = 0 ; \quad \boxed{x = \frac{1}{3}}$$