1. RESOLVER LAS SIGUIENTES ECUACIONES RACIONALES

1. $\frac{3-x}{x+2}-\frac{x-1}{x-2}=-2$ *(Soluc: x=3)*
2. $\frac{x+2}{x}+3x=\frac{5x+6}{2}$ *(Soluc: x=2)*
3. $\frac{8}{x+6}+\frac{12-x}{x-6}=1$ *(Soluc: $x_1=10$; $x_2=-3$)*
4. $\frac{2x}{x-1}+\frac{3x+1}{x-1}=2$ *(Soluc: x=−1)*
5. $\frac{3x+1}{x^3}+\frac{x+1}{x}=1+\frac{2x+3}{x^2}$ *(Soluc: x=±1)*
6. $\frac{5x+1}{x^2-4}-\frac{1}{x+2}=\frac{x}{x-2}$ *(Soluc: $x_1=3$; $x_2=-1$)*
7. $\frac{x-1}{x^2+2x}-\frac{2}{x^2-2x}=\frac{x}{x^2-4}$ *(Soluc: x=−2/5)*
8. (*) $\frac{x-2}{x-1}=\frac{x^2}{(x-1)(x-2)}+\frac{x-1}{x-2}$ *(Soluc: x=−3)*
9. $\frac{1}{x^2-3x+2}+\frac{1}{x-1}=\frac{1}{x-2}$ *(Identidad: se verifica $\forall \mathbb{R}$)*
10. $\frac{x}{x-6}-\frac{1}{2}=\frac{x}{6}-\frac{x+6}{x-6}$ *(Soluc: $x_1=18$; $x_2=-3$)*
11. $\frac{1}{x}=-x+\frac{5}{2}$ *(Soluc: $x_1=2$; $x_2=1/2$)*
12. $\frac{4}{x}+\frac{2(x+1)}{3(x-2)}=4$ *(Soluc: $x_1=3$; $x_2=4/5$)*
13. $\frac{x}{\sqrt{2}}+\frac{\sqrt{2}}{x}=\sqrt{2}x$ *(Soluc: x=±√2)*
14. $\frac{1}{x}+\frac{1}{x+3}=\frac{3}{10}$ $\left(x=\frac{11\pm\sqrt{481}}{6}\right)$
15. $\frac{1}{x}+\frac{1}{x^2}=\frac{3}{4}$ *(Soluc: $x_1=2$; $x_2=-2/3$)*
16. $\frac{x}{x-1}+\frac{2x}{x+1}=3$ *(Soluc: x=3)*
17. $\frac{5}{x+2}+\frac{x}{x+3}=\frac{3}{2}$ *(Soluc: $x_1=3$; $x_2=-4$)*
18. $\frac{x+3}{x-1}-\frac{x^2+1}{x^2-1}=\frac{26}{35}$ *(Soluc: $x_1=6$; $x_2=-8/13$)*
19. $\frac{4x}{x+1}+\frac{x}{2x-1}=2$ *(∄ soluc.)*

20. (*) $\frac{x-3}{x^2-x}-\frac{x+3}{x^2+x}=\frac{2-3x}{x^2-1}$ *(Soluc: x=2)*

21. $\frac{4x}{x+5}-\frac{x+5}{x-5}=1$ *(Soluc: $x_1=0$; $x_2=15$)*

22. $\frac{1-2x}{x+7}=\frac{x}{x-1}$ *(Soluc: $x_1=-1$; $x_2=-1/3$)*

23. $\frac{1}{x-1}+\frac{1}{x+1}=\frac{5}{12}$ *(Soluc: $x_1=5$; $x_2=-1/5$)*

24. $\frac{3-x}{x+2}-\frac{x-1}{x-2}=\frac{2}{x^2-4}$ *(∄ soluc.)*

25. $\frac{x}{5}=2+\frac{75}{x}$ *(Soluc: $x_1=25$; $x_2=-15$)*

26. $\frac{2x+1}{x-1}-\frac{6x}{x+2}=2$ *(Soluc: $x_1=2$; $x_2=-1/2$)*

27. $\frac{-x}{x+3}-\frac{x+3}{x-3}=1$ *(Soluc: $x_1=0$; $x_2=-1$)*