1. RESOLVER LAS SIGUIENTES ECUACIONES BICUADRADAS

1. $x^4-5x^2+4=0$ *(Soluc: $x=\pm1$, $x=\pm2$)*
2. $x^4-5x^2-36=0$ *(Soluc: $x=\pm3$)*
3. $x^4+13x^2+36=0$ *(Soluc: $\nexists$ soluc)*
4. $x^4-13x^2+36=0$ *(Soluc: $x=\pm2$, $x=\pm3$)*
5. $x^4-4x^2+3=0$ *(Soluc: $x=\pm1$, $x=\pm\sqrt{3}$)*
6. $x^4+21x^2-100=0$ *(Soluc: $x=\pm2$)*
7. $x^4+2x^2+3=0$ *(Soluc: $\nexists$ soluc)*
8. $x^4-41x^2+400=0$ *(Soluc: $x=\pm4$, $x=\pm5$)*
9. $36x^4-13x^2+1=0$ *(Soluc: $x=\pm1/2$, $x=\pm1/3$)*
10. $x^4-77x^2-324=0$ *(Soluc: $x=\pm9$)*
11. $x^4-45x^2+324=0$ *(Soluc: $x=\pm3$, $x=\pm6$)*
12. $x^4+2x^2-8=0$ *(Soluc: $x=\pm\sqrt{2}$)*
13. $x^6+7x^3-8=0$ *(Soluc: $x=1$, $x=-2$)*
14. $x^4-16=0$ *(Soluc: $x=\pm2$)*
15. $x^4+16=0$ *(Soluc: $\nexists$ soluc)*
16. $x^4-16x^2=0$ *(Soluc: $x=0$, $x=\pm4$)*
17. $x^6-64=0$ *(Soluc: $x=\pm2$)*
18. $(x^2+2)(x^2-2)+3x^2=0$ *(Soluc: $x=\pm1$)*
19. $5x^2=(6+x^2)(6-x^2)$ *(Soluc: $x=\pm2$)*
20. $(x^2+x)(x^2-x)=(x-2)^2+x(x+4)$ *(Soluc: $x=\pm2$)*
21. $(2x^2+1)(x^2-3)=(x^2+1)(x^2-1)-8$ *(Soluc: $x=\pm\sqrt{2}$, $x=\pm\sqrt{3}$)*
22. $(x^2-2)^2=5(1+x)(1-x)+1$ *(Soluc: $x=\pm1$)*
23. $(x^2+1)(x^2-1)+3x^2=3$ *(Soluc: $x=\pm1$)*
24. $(3+x)(3-x)x^2-2x(x-3)=(x+3)^2-1$ *(Soluc: $x=\pm2$, $x=\pm\sqrt{2}$)*
25. $5(x+1)(x-1)=1-(x^2-2)^2$ *(Soluc: $x=\pm1$)*
26. $(x+3)(x-3)=\left(\frac{20}{\square}\right)^2$ *(Soluc: $x=\pm5$)*

28. $\frac{x^2-32}{4}=-\frac{28}{x^2-9}$ *(Soluc: $x=\pm4$, $x=\pm5$)*
29. $\frac{2}{x^2-9}=\frac{x^2-16}{72}$ *(Soluc: $x=0$; $x=\pm5$)*
30. $\frac{(2x+3)^2-12x}{x^2+2x}=x^2-2x$ *(Soluc: $x=\pm3$)*
31. $\frac{(x+1)(x-1)}{2}-\frac{(x^2+3)(x^2-3)}{6}=\frac{1}{3}$ *(Soluc: $x=\pm2$)*
32. $\frac{(2x+1)^2-(x^2+1)(x^2-1)}{x}=3(x+1)+1$ *(Soluc: $x=\pm\sqrt{2}$)*
33. $\frac{(2x+1)^2}{4}-\frac{(x^2+2)(x^2-2)}{3}=\frac{4x+1}{4}$ *(Soluc: $x=\pm2$)*
34. $\frac{(x+2)(x-2)}{4}-\frac{x^2}{2}=\frac{(x^2-2x)(x^2+2x)}{4}-2$ *(Sol: $x=\pm2$)*
35. $\frac{(3x^2-1)(x^2+3)}{4}-\frac{(2x^2+1)(x^2-3)}{3}=4x^2$ *($x=\pm1$, $x=\pm\sqrt{3}$)*
36. $\frac{(3x^2+2)(3x^2-2)}{5}-\frac{(3x-1)^2}{4}=\frac{3(x-1)}{2}$ *($x=\pm1/2$, $x=\pm1$)*
37. $(2x^2-8)(2x^2+8x)(x^4-2x^2-8)=0$ *($x=\pm2$, $x=0$, $x=-4$)*
38. $(9-4x^2)(9x-4x^2)(4x^4-21x^2+27)=0$

(Soluc: $x=\pm2/3$, $x=0$, $x=9/4$, $x=\pm3/2$, $x=\pm\sqrt{3}$)

39. $\frac{3x^2+1}{6x+1}=\frac{6x-1}{3x^2-1}$ *(Soluc: $x=\pm2$, $x=0$)*
40. $\frac{(2x^2+3)(2x^2-3)}{2}-\frac{(2x-3)^2}{3}=4x-\frac{41}{6}$ *(Sol: $x=\pm1$)*
41. $x^2(x+1)(x-1)=(2-x)^2+(x+4)x$ *(Soluc: $x=\pm2$)*

☞ *Ejercicios libro ed. Editex: **pág. 54: 9; pág. 62: 31** (sencillas); **pág. 63: 32 y 33** (con paréntesis y algún denominador)*