Problem	Solution

1. $(x-3)(x-2)=(x-4)^2$
2. $(x-1)^2+(x+1)^2=29-(2x+3)^2$
3. $-x+(3+4x)=3x+3$
4. $5-2\left[2x-(3-10x)-4\right]=-225$
5. $\dfrac{1}{x-\dfrac{1}{x+1}}=5$
6. $\dfrac{x}{2}-\dfrac{x}{3}+\dfrac{x}{4}-\dfrac{x}{12}=32$
7. $11x-23=15x-(4x+8)$
8. $3x-5y+7z=\dfrac{4}{9}(x-y+3z)$
9. $\dfrac{5-\dfrac{2-\dfrac{1-x}{3}}{4}}{3}=1$
10. $(x-1)^2-(x-1)-6=0$
11. $\left(x+\dfrac{1}{x}\right)^2-8\left(x+\dfrac{1}{x}\right)+7=0$
12. $\dfrac{2a-x}{a-5}-\dfrac{5+x}{3}=\dfrac{5a+x}{a+2}-\dfrac{x+6}{2}$
13. $\dfrac{6x+7}{15}-\dfrac{2x-2}{7x-6}=\dfrac{2x+1}{5}$
14. $\dfrac{x-5}{x+5}-\dfrac{x+5}{x-5}=\dfrac{21x}{25-x^2}$
15. $\dfrac{3x-5}{5x-5}+\dfrac{5x-1}{7x-7}+\dfrac{x-4}{x-1}=2$
16. $\left(x-\dfrac{1}{2}\right)^2-\left(x+\dfrac{1}{2}\right)^2=x$
17. $\dfrac{8x}{6x+2}=2-\left(\dfrac{7x}{15x+5}+\dfrac{x}{3x+1}\right)$

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18. $\left(5+\frac{x}{2}\right)\left(5-\frac{x}{2}\right)+\frac{x^2}{4}=x+12$

19. $\frac{2}{5}x-\frac{3x-3}{x+1}=3-\frac{1-4x}{10}$

20. $\frac{5x-1}{9}+\frac{3x-1}{5}=\frac{2}{x}+x-1$

21. $\frac{6x+4}{5}-\frac{15-2x}{x-3}=\frac{7(x-1)}{5}$

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

23. $\sqrt{x+60}=2\sqrt{x+5}+\sqrt{x}$

24. $\sqrt{(2x-1)(2x+3)}=2x-1$

25. $\sqrt{x^2+2x-14}=\sqrt{x^2-5}-1$

26. $2\sqrt{x}-\sqrt{2x}=2$

27. $\sqrt{1+x+x^2}+\sqrt{1-x+x^2}=\sqrt{6}$

28. $\sqrt{10+x}+\sqrt{10-x}=6$

29. $\left(18-\sqrt[4]{10+\sqrt{3(x^2-3)}}\right)^{\frac{1}{4}}=2$

30. $\sqrt{x-6}+\sqrt{x-1}=\sqrt{x-9}+\sqrt{x+6}$

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

32. $\frac{\sqrt{x}+29}{\sqrt{x}+5}=\frac{\sqrt{x}+37}{\sqrt{x}+7}$

33. $\sqrt{x+3}-\sqrt{x-2}=\sqrt{6x-11}$

34. $\sqrt{\frac{x}{2}+4}=\sqrt[3]{2x+8}$

35. $\frac{1}{1-\sqrt{2x}}+\frac{1}{1+\sqrt{2x}}-\frac{2}{1-2x}=0$

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36. $\dfrac{\dfrac{1}{x^2}-\dfrac{2}{x}+1}{x+1-\dfrac{2}{x}}=\dfrac{1}{8}$

37. $ax+b=B+Bx$

38. $\dfrac{1}{10}-\dfrac{1}{p}=\dfrac{1}{x}$

39. $x^2-(a+b)x+ab=0$

40. $c=\dfrac{Kbx}{b-x}$

41. $a-\dfrac{b+x}{b}=b-\dfrac{a+x}{a}$

42. $\dfrac{a}{x}-1=\dfrac{b}{x}-9$

43. $\dfrac{1}{a+b}+\dfrac{a+b}{x}=\dfrac{1}{a-b}+\dfrac{a-b}{x}$

44. $\dfrac{x+ab}{c}+\dfrac{x+ac}{b}+\dfrac{x+bc}{a}=0$

45. $\dfrac{x}{a}-\dfrac{1}{3}(9a-3x)-\dfrac{a+x}{2a}=\dfrac{4a-x}{a}$

46. $\left(\dfrac{1}{a}-x\right)(a+x)-\left(\dfrac{1}{a}-x\right)(a-x)=0$

47. $\dfrac{a-bm}{mx}-\dfrac{c-bn}{nx}=1$

48. $\dfrac{3b(x-a)}{5a}+\dfrac{x-b^2}{15b}+\dfrac{b(4a+cx)}{6a}=0$

49. $\dfrac{x+a-b}{a}+\dfrac{x-a-2b}{b}+\dfrac{a+b-x}{x}=0$

50. $3ax+12a^2\sqrt{x}=15a^3$