

1. $(3x-1)(x+2)=20$

2. $(x-4)(4x-3)+3=0$

3. $2x(3x-1)+10(x+1)=5(3-x)$

$$\frac{x-5}{x+5} + \frac{x+5}{x-5} = 18$$

4. $\frac{x-5}{x-4} + \frac{x+5}{x+4} = 4$

5. $\frac{x+1}{x} + \frac{x}{x+1} = \frac{3x+2}{x(x+1)}$

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

7. $\frac{5}{x+1} - 1 = \frac{10-x}{x-1}$

8. $\frac{x-4}{x-3} + \frac{x+4}{x+3} = 3$

9. $2 - \frac{x}{(4-x)(3+x)} = \frac{5x}{x-4} - \frac{11+3x}{x+3}$

10. $\frac{2x-1}{2x+1} = \frac{2x+1}{2x-1} + \frac{8}{1-4x^2}$

11. $\sqrt{x+6} + \sqrt{3x-5} = 5$

12. $\sqrt{x-5} - 3 + \sqrt{10-x} = 0$

13. $\sqrt{4x^2 - \sqrt{8x+5}} = 2x+1$

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

15. $\frac{4x+3}{3x+4} \geq 2$

16. $\frac{2-5x}{3-2x} \leq 4$

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

18. $\frac{(x+3)^2}{x-1} \leq (x+7)$

19. $\frac{(x-4)^2}{x-6} \geq (x-2)$

20. $\frac{(x-2)^2}{x+2} \leq x-3$

21. $x^2 - 5x \leq 14$

22. $2x^2 - x - 10 \geq 0$

23. $x^2 - 24 \geq 5x$

24. $3x^2 - 8x - 3 \leq 0$

25. $2x^2 \leq x+6$

26. $7x-6 \geq 2x^2$

27. $6x^2 \leq 13x+5$

28. $|x+1| - |3-x| \leq 0$

29. $|2-x| - |x+3| \leq 0$

30. $|2-3x| - |3x+4| \geq 0$

31. $(x-7)(x+3) \leq 2x-21 - (x-1)(x+6)$