Rational Equations

1. $3 = \dfrac{12}{4x+5}$

2. $\dfrac{9}{4x+2} = \dfrac{1}{2}$

3. $\dfrac{4}{9+x} = -\dfrac{1}{3x}$

4. $\dfrac{y-5}{9} = \dfrac{y-7}{5}$

5. $\dfrac{4}{x-3} = \dfrac{7}{x+2}$

6. $\dfrac{9}{2x-3} = \dfrac{6}{3x-7}$

7. $\dfrac{2x}{6x^2-5} = \dfrac{1}{3x+10}$

8. $4 + \dfrac{x+2}{2} - \dfrac{x+4}{6} = 0$

9. $\dfrac{x+1}{2} = \dfrac{5x-2}{3} - \dfrac{3x+1}{6}$

10. $\dfrac{8}{x} + \dfrac{x+6}{3x} + \dfrac{x-4}{6x} = \dfrac{8}{9}$

11. $\dfrac{3}{x-1} = 2 - \dfrac{2x-5}{x+1}$

12. $\dfrac{2}{x-1} - \dfrac{3}{x+4} + \dfrac{1}{x+5} = 0$

13. $\dfrac{18}{x^2-9} + 1 = \dfrac{x}{x+3}$

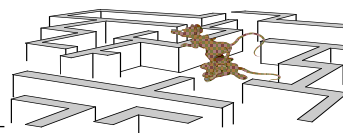14. $\dfrac{x+1}{x^2-4} = \dfrac{4}{x+2} - \dfrac{3}{2-x}$

15. $\dfrac{10}{x-3} + \dfrac{5}{x+1} = \dfrac{25}{x^2-2x-3}$

16. $\dfrac{3}{x^2+2x-15} + \dfrac{4}{x^2-9} = \dfrac{8}{x^2+8x+15}$

17. $\dfrac{4x+4}{x^2+3x+2} = \dfrac{x}{x+2}$

18. $\dfrac{2}{x^2-2x} - \dfrac{1}{3} = \dfrac{1}{x}$

19. $\dfrac{3x-5}{x^2+4x+3} + \dfrac{2x+2}{x+3} = \dfrac{x-3}{x+1}$

20. $\dfrac{1}{x^2+2x-8} + \dfrac{3x}{2x^2+19x+44} = \dfrac{2x}{2x^2+7x-22}$