

EQUATIONS

Résoudre les équations suivantes :

1. $x \in \mathbb{D} \quad 16x^2 = 9$

2. $x \in \mathbb{Z} \quad x^3 + 9x = -6x^2$

3. $x \in \mathbb{Q} \quad 16x^2 + 9 = 24x$

4. $x \in \mathbb{Z} \quad 9(x-1)^2 = (3x-2)^2$

5. $x \in \mathbb{R} \quad 9-25x^2 = (5x+3)(x-1)$

6. $x \in \mathbb{D} \quad (2x-1)^2 = (4x-2)(4x+2)$

7. $x \in \mathbb{Q} \quad 3(9x^2-16) = 4(3x-4)(7x+1)$

8. $x \in \mathbb{D} \quad 9 = 4(x+3)^2$

9. $x \in \mathbb{N} \quad (x-2)^3 = x-2$

10. $x \in \mathbb{D} \quad 4x^2+1-4x = (2x-1)(x+3)$

11. $x \in \mathbb{Q} \quad (3x-5)^2 = (x+7)(3x-5)$

12. $x \in \mathbb{R} \quad x^2-49 = (2x-1)(7-x)$

13. $x \in \mathbb{D} \quad 4x^2 = 9x^2-48x+64$

14. $x \in \mathbb{D} \quad (2x-6)(x+1)-(x-3)^2 = 9-x^2$

15. $x \in \mathbb{Q} \quad (5x-1)(2x+3) = 25x^2-1$

16. $x \in \mathbb{R} \quad 4x^2-28x+49 = (5x+3)(2x-7)$

17. $x \in \mathbb{Q} \quad (3x-1)(4x+5)-(9x^2-1) = 12x-4$

18. $x \in \mathbb{R} \quad 16-25x^2+(5x-4)(3x+7) = (4-5x)^2$

19. $x \in \mathbb{R} \quad (13x^4-25x^2-28)^2 = (-12x^4+25x^2-53)^2$

20. $x \in \mathbb{R} \quad \frac{2}{x} = \frac{3}{x+1} + \frac{1}{x(x+1)}$

21. $x \in \mathbb{R} \quad \frac{x^2+4x-3}{x^2-1} = 1$

22. $x \in \mathbb{R} \quad \frac{x^2}{x-1} = 1 + \frac{1}{x-1}$

23. $x \in \mathbb{R} \quad \frac{2x+3}{x-2} = \frac{x+3}{x-1}$

24. $x \in \mathbb{R} \quad \frac{4x-1}{x+3} = \frac{x-3}{2x+9}$

25. $x \in \mathbb{R} \quad \frac{3}{x-2} - \frac{5}{x+2} = \frac{12}{x^2-4}$

26. $x \in \mathbb{R} \quad \frac{3x+2}{x} - \frac{2x-7}{x-1} = \frac{5x-2}{x(x-1)}$

27. $x \in \mathbb{R} \quad \frac{10x-25}{4-x} + \frac{6-5x}{x+5} = 1$

28. $x \in \mathbb{R} \quad \frac{3x+5}{x-1} - \frac{3}{x} = \frac{3}{x(x-1)}$

29. $x \in \mathbb{R} \quad \frac{10}{1-x} - \frac{8x}{x+5} = 7$

30. $x \in \mathbb{R} \quad \frac{3x+3}{x-4} - \frac{14}{(x-4)(3x+2)} = \frac{3}{3x+2}$

31. $x \in \mathbb{R} \quad \frac{2x-7}{2x-5} = \frac{3x-5}{2x-7}$

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