

PRODOTTI E QUOZIENTI DI RADICALI IN \mathbb{R}_0^+

1. $\sqrt{2} \cdot \sqrt{8} =$
2. $\sqrt{3} \cdot \sqrt{27} =$
3. $\sqrt{12} \cdot \sqrt{3} =$
4. $\sqrt{6} \cdot \sqrt{18} \cdot \sqrt{12} =$
5. $\sqrt{6} \cdot \sqrt{5} \cdot \sqrt{30} =$
6. $\sqrt{125} : \sqrt{5} =$
7. $\sqrt{20} : \sqrt{45} =$ $\sqrt{72} : \sqrt{32} =$
8. $\frac{\sqrt{15}}{\sqrt{3}} \cdot \sqrt{125} =$
9. $\sqrt{\frac{7}{3}} \cdot \sqrt{\frac{1}{14}} \cdot \sqrt{\frac{2}{3}} =$
10. $\sqrt{\frac{10}{3}} \cdot \frac{\sqrt{6}}{\sqrt{35}} \cdot \sqrt{7} =$
11. $\sqrt[3]{3} \cdot \sqrt[3]{9} =$ $\sqrt[3]{4} \cdot \sqrt[3]{9} \cdot \sqrt[3]{6} =$
12. $\sqrt[6]{50} \cdot \sqrt[6]{12} \cdot \sqrt[6]{45} =$
13. $\sqrt[6]{128} : (\sqrt[6]{8} : \sqrt[6]{4}) =$
14. $(\sqrt[6]{128} : \sqrt[6]{8}) : \sqrt[6]{4} =$
15. $\sqrt[6]{\frac{a^2 - ab}{b^2}} \cdot \sqrt[6]{\frac{ab^2 + b^3}{4a - 4b}} \cdot \sqrt[6]{\frac{a^2}{a^2 + ab}} =$
16. $\sqrt[3]{\frac{a^3 - b^3}{a^2 - b^2}} \cdot \sqrt[3]{\frac{a^2 + 2ab + b^2}{a + b}} \cdot \sqrt[3]{\frac{(a^2 + b^2)^3}{a^2 + ab + b^2}} =$
17. $\sqrt[4]{\frac{4x - 4y}{9x}} : \sqrt{\frac{2x - 2y}{3x}} =$
18. $\sqrt{\frac{1-a}{1+a}} \cdot \sqrt[3]{a+1} \cdot \sqrt[5]{\frac{(1+a)^2}{(1-a)^3}} =$
19. $\sqrt[3]{x+1} \cdot \sqrt{x^2-1} : \sqrt[6]{(x+1)^5} =$
20. $(\sqrt[4]{x-y} : \sqrt[3]{x^2-y^2}) \cdot \sqrt[6]{3x+3y} =$
21. $\sqrt[3]{(a+b)^2} \cdot \sqrt[4]{\frac{4}{a+b}} : \sqrt[6]{8(a+b)^2} =$
22. $\sqrt[3]{2ab} \cdot \sqrt{a+b} \cdot \sqrt[6]{4ab^3} : \sqrt{\frac{2a+2b}{ab}} =$
23. $\sqrt{3^2} \cdot \sqrt{6} =$ $\sqrt[3]{2^2} \cdot \sqrt[6]{2} =$
24. $\sqrt[5]{a} \cdot \sqrt[3]{a^2} =$ $\sqrt[5]{ab} \cdot \sqrt[4]{a^3} =$
25. $\sqrt[3]{a^2} \cdot \sqrt[4]{a} =$ $\sqrt[12]{2^5} \cdot \sqrt[18]{2a^2} =$
26. $\sqrt[3]{a^2} \cdot \sqrt[4]{a^2 b^3} =$ $\sqrt[4]{ab^2} \cdot \sqrt[8]{a^3} =$
27. $\sqrt[5]{ab^3} \cdot \sqrt[4]{a^2 b} =$ $\sqrt[3]{b^2 c} \cdot \sqrt[6]{bc} =$
28. $\frac{\sqrt[5]{a-b} \cdot \sqrt[3]{(a-b)^2}}{\sqrt[5]{(a-b)^3}} =$
29. $(\sqrt[10]{a^3 b^4} : \sqrt[15]{ab}) : \sqrt[6]{ab^2} =$
30. $a + 4b + 4\sqrt{ab} =$ $a + 9 + 6\sqrt{a} =$
31. $4a + 1 - 4\sqrt{a} =$ $9 + 4a + 12\sqrt{a} =$

32. $(\sqrt{a} + 2\sqrt{b})^2 =$

33. $(\sqrt{x} - \sqrt{y})^2 =$

34. $\sqrt{a}(\sqrt{a^3} + \sqrt{4a}) =$

35. $\sqrt{2x} \left(\sqrt{\frac{x}{2}} - \sqrt{\frac{2}{x}} \right) =$

36. $\sqrt[5]{a-b} \cdot \sqrt[5]{(a-b)^4} + (\sqrt[6]{a+b})^6 - \sqrt[4]{(2a-3b)^4} =$

37. $\sqrt{\frac{\sqrt{128}}{\sqrt{8}}} + \left(\frac{\sqrt{60}}{\sqrt{6}} \right)^2 - \sqrt{50} \cdot \sqrt{2} + \left(\frac{\sqrt[3]{10}}{\sqrt[3]{2}} \right)^3 =$

38. $\left(\sqrt{\frac{1}{a}} + 2\sqrt{a} \right) \sqrt{a} + (1 - \sqrt{2a})(1 + \sqrt{2a}) =$

39. $\left[\left(\sqrt[3]{\frac{x^2}{y}} : \sqrt[6]{\frac{x}{y^4}} \right) \cdot \sqrt[12]{x^{-5}y^{-4}} \right]^{12} =$

40. $\left(\sqrt[3]{\frac{x^2}{y}} : \sqrt[6]{\frac{x}{y^5}} \right)^2 =$

41. $\sqrt[4]{\frac{4x^2y}{9ab^3}} : \sqrt[6]{\frac{8xy^2}{3a^2b}} =$

44. $\sqrt[3]{\frac{a^2+2a+1}{ab-b}} \cdot \sqrt[6]{\frac{a^2-2a+1}{ab+b}} \cdot \sqrt[4]{\frac{b^2(a-1)^2}{2a^2+4a+2}} =$

45. $\sqrt{\frac{4-x^2}{x+2}} \cdot \sqrt{\frac{x^3+8}{2-x}} \cdot \sqrt{\frac{x^2}{x^2+2x}} =$

46. $\sqrt[3]{\frac{x+2y}{x^2-4y^2}} \cdot \sqrt{\frac{x-2y}{x+2y}} \cdot \sqrt[4]{\frac{(x^3+2x^2y)^2}{x^4y^2}} =$

47. $\sqrt[3]{\frac{(a-1)^4}{a^2+a}} : \left[\sqrt{\frac{a^2-1}{a}} \cdot \sqrt[6]{\left(\frac{a-1}{a+1}\right)^5} \right] =$

48. $\sqrt[m]{\frac{(x^2+xy)^2}{ax^2}} \cdot \sqrt[m]{\frac{a^2+ab}{a^2-b^2}} \cdot \sqrt[m]{\frac{ab^2-b^3}{(x^2-y^2)^2}} =$

49. $\sqrt[n]{\frac{x^3-2x^2y+xy^2}{(xy+y^2)(x-y)}} \cdot \sqrt[n]{\frac{x^3+y^3}{x^2-y^2}} \cdot \sqrt[n]{\frac{9xy^2+9y^3}{x^2-xy+y^2}} =$

50. $n^2 \sqrt[n-1]{\frac{a+b}{a}} : \left(n^{-1} \sqrt[n-1]{\frac{a+b}{a}} \cdot n^{+1} \sqrt[n-1]{\frac{a}{a+b}} \right) =$

51. $\sqrt[3]{\frac{x+y}{a}} \cdot \sqrt[4]{\frac{(x-y)^2}{x+y}} : \left(\sqrt[6]{\frac{x+y}{a^3}} \cdot \sqrt[4]{\frac{(x-y)^2}{a}} \right) =$

42. $\sqrt[4]{\frac{a^3-b^3}{a^3+b^3}} \cdot \sqrt[4]{\frac{a^2-ab+b^2}{a^2+ab+b^2}} \cdot \sqrt{\frac{a+b}{a-b}} =$

43. $\left(\frac{\sqrt[5]{a^2+a^3} : \sqrt{a+1}}{\sqrt[10]{a^5+a^4}} \right)^5 =$