

Simplifying Radicals

1. $\sqrt{2} \cdot \sqrt{3}$

2. $\sqrt{4} \cdot \sqrt{6}$

3. $\sqrt{x} \cdot \sqrt{y}$

4. $\sqrt[3]{5} \cdot \sqrt[3]{6}$

5. $\sqrt[3]{12} \cdot \sqrt[3]{4}$

6. $\sqrt[3]{x^2} \cdot \sqrt[3]{x^5}$

7. $\sqrt[4]{4} \cdot \sqrt[4]{32}$

8. $\sqrt[4]{x^3} \cdot \sqrt[4]{x^5}$

9. $\sqrt[5]{x^7} \cdot \sqrt[5]{x^2}$

10. $\sqrt[5]{8x^3} \cdot \sqrt[5]{4x^4}$

11. $\sqrt[6]{24x^4} \cdot \sqrt[6]{243x^3}$

12. $\sqrt[10]{128x^7} \cdot \sqrt[10]{512x^5}$

13. $\sqrt{2} \cdot \sqrt[3]{4}$

14. $\sqrt{x} \cdot \sqrt[4]{x^2}$

15. $\sqrt{x^2y} \cdot \sqrt[3]{x^5y^4}$

16. $\sqrt[3]{x^2y} \cdot \sqrt[4]{x^5y^7}$

17. $\sqrt[4]{8x^4y^2} \cdot \sqrt[3]{16x^6y^4}$

18. $\sqrt{25xy^3} \cdot \sqrt[3]{625x^7y^5}$

19. $\sqrt{5xy} \cdot \sqrt[3]{625x^4y^5} \cdot \sqrt[4]{3125x^2y^7}$

20. $\sqrt{32x^5y^3} \cdot \sqrt[4]{8x^4y^6} \cdot \sqrt[3]{64x^7y^8}$

21. $\frac{\sqrt{6}}{\sqrt{2}}$

22. $\frac{\sqrt{6x^3y}}{\sqrt{3xy}}$

23. $\frac{\sqrt[3]{16x^4}}{\sqrt[3]{2x}}$

24. $\frac{\sqrt[3]{5x^2y^5}}{\sqrt[3]{625x^5y^2}}$

25. $\frac{\sqrt[4]{64x^7y^4z^{11}}}{\sqrt[4]{4x^{11}y^8z^3}}$

26. $\frac{\sqrt[5]{x^4y^9z^{12}}}{\sqrt[5]{x^9y^4z^2}}$

27. $\frac{\sqrt{3}}{\sqrt[3]{3}}$

28. $\frac{\sqrt[4]{6}}{\sqrt{6}}$

29. $\frac{\sqrt[3]{x^2}}{\sqrt[4]{x^5}}$

30. $\frac{\sqrt{xy}}{\sqrt[5]{x^2y^4}}$

31. $\frac{\sqrt[3]{x^2yz^4}}{\sqrt[4]{x^3y^6z^3}}$

33. $\frac{\sqrt[5]{x^4y^{11}z^3}}{\sqrt[3]{x^6y^2z^8}}$

35. $\frac{\sqrt[3]{(x^4y^2z)^2}}{\sqrt{(xy^4z^5)^3}}$

36. $\frac{\sqrt{(x^4y^5z^{-3})^4}}{\sqrt[3]{(x^{-2}y^7z^4)^2}}$

37. $\frac{\sqrt[4]{(x^{-3}y^2z^{-5})^{-2}}}{\sqrt[3]{(x^{-4}y^9z^{-3})^2}}$

38. $\frac{\sqrt{4x^2y} \cdot \sqrt[3]{16x^4y^2}}{\sqrt[4]{8x^3y^5}}$

39. $\frac{\sqrt[3]{27x^{-6}y^7} \cdot \sqrt{243x^2y^{-5}}}{\sqrt[4]{81x^9y^{-6}}}$

40. $\frac{\sqrt{12x^5y^3} \cdot \sqrt[5]{48x^3y^7}}{\sqrt[3]{8x^4y^2} \cdot \sqrt[4]{81x^5y^6}}$

41. $(\sqrt{2} + \sqrt[3]{3})(\sqrt{2} + 2\sqrt[3]{3})$

42. $(\sqrt[3]{5} + \sqrt[4]{7})(\sqrt[3]{5} + \sqrt[4]{7})$