

In Exercises 45–48, simplify the expression.

45. $(y^{1/6})^3 \cdot \sqrt{x}$

46. $(y \cdot y^{1/3})^{3/2}$

47. $x \cdot \sqrt[3]{y^6} + y^2 \cdot \sqrt[3]{x^3}$

48. $(x^{1/3} \cdot y^{1/2})^9 \cdot \sqrt{y}$

5. $x^3 \cdot x^{-2/3} \cdot x^{1/2}$

7. $\sqrt[3]{\frac{125}{81}}$

11. $(-27)^{-4/3}$

23. $\left(\frac{2a^0b^{-4}}{b^3}\right)^4 \cdot \left(\frac{a^3b^{-2}}{3b^4a^{-4}}\right)^3$