

Simplify each expression.

1. $\sqrt{24}$

2. $\sqrt[3]{1000}$

3. $\sqrt[3]{-162}$

4. $\sqrt{512}$

5. $\sqrt[4]{128n^8}$

6. $\sqrt{98k}$

7. $\sqrt[5]{224r^7}$

8. $\sqrt[3]{24m^3}$

9. $\sqrt{392x^2}$

10. $\sqrt{512x^2}$

11. $\sqrt[4]{405x^3y^2}$

12. $\sqrt[3]{-16a^3b^8}$

13. $\sqrt[4]{128x^7y^7}$

14. $\sqrt[3]{16xy}$

15. $\sqrt[6]{448x^7y^7}$

16. $\sqrt[3]{56x^5y}$

Review: Simplify each expression.

1. $2m^2 \times 2m^3$

2. $\frac{4x^4}{3x^2}$

3. $(p^3)^4$

4. $(13q^5)^0$

Answer key:

1. $2\sqrt{6}$

3. $-3\sqrt[3]{6}$

5. $2n^2\sqrt[4]{8}$

7. $2r^5\sqrt{7r^2}$

9. $14|x|\sqrt{2}$

11. $3\sqrt[4]{5x^3y^2}$

13. $2|xy|\sqrt[4]{8x^3y^3}$

15. $2|xy|\sqrt[6]{7xy}$

17. $\sqrt[3]{40m^4n^8}$

R1. $4m^5$

R3. p^{12}