

Practice

Roots of Real Numbers

Simplify.

1. $\sqrt[5]{32}$

2. $-\sqrt[4]{256}$

3. $\sqrt{x^2 + 10x + 25}$

4. $\sqrt[6]{(m + 4)^6}$

5. $\sqrt[3]{-64r^6w^{15}}$

6. $\sqrt{49m^2t^8}$

7. $\sqrt[4]{81}$

8. $\sqrt[3]{-64}$

9. $\sqrt{(2x)^8}$

10. $-\sqrt[4]{625}$

11. $\sqrt[3]{216}$

12. $\sqrt{676x^4y^6}$

13. $\sqrt[3]{(2x + 1)^3}$

14. $\sqrt[5]{-32x^5y^{10}}$

15. $-\sqrt{144m^8n^6}$

16. $\sqrt[3]{-27x^9y^{12}}$

17. $\sqrt[5]{243x^{10}}$

18. $-\sqrt{49a^{10}b^{16}}$

19. $\sqrt[4]{(x - 5)^4}$

20. $\sqrt[3]{343d^6}$

21. $\sqrt{0.81}$

22. $-\sqrt{0.0016}$

23. $\sqrt[3]{0.512}$

24. $-\sqrt[4]{0.6561}$

Use a calculator to approximate each value to three decimal places.

25. $\sqrt{7.8}$

26. $-\sqrt{89}$

27. $\sqrt[3]{25}$

28. $\sqrt[3]{-4}$