

nth Roots and Rational Exponents

In problems 1-3, simplify each radical

1. $\sqrt[3]{27}$	2. $\sqrt[5]{-32}$
3. $-\sqrt[4]{16}$	

In problem 4, use a calculator to write each expression as a decimal rounded to two decimal places

4. $\sqrt[7]{13}$	
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In problems 5-6, simplify each radical

5. $\sqrt[6]{x^6}$	6. $\sqrt[7]{(x+1)^7}$
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In problems 7-9, evaluate each expression

7. $-9^{\frac{1}{2}}$	8. $(-9)^{\frac{1}{2}}$
9. $(-64)^{\frac{1}{3}}$	

In problem 10, rewrite each of the following radicals with a rational exponent

10. $\sqrt[7]{4x}$	
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In problems 11-14, evaluate each expression

11. $9^{\frac{3}{2}}$	12. $8^{\frac{5}{3}}$
13. $(-8)^{\frac{4}{3}}$	14. $\frac{1}{16^{\frac{-3}{2}}}$

In problems 15-16, rewrite each of the following radicals with a rational exponent

15. $\sqrt[6]{x^2}$	16. $(\sqrt[3]{5x})^5$
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In problems 17-18, use a calculator to write each expression as a decimal rounded to two decimal places

17. $14^{\frac{1}{2}}$	18. $5^{0.2}$
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