

5.1**Practice A**

In Exercises 1-12, write in radical form and evaluate the expression without using a calculator.

1. $27^{1/3}$

2. $16^{1/4}$

3. $4^{3/2}$

4. $625^{3/4}$

5. $(-1000)^{2/3}$

6. $32^{1/5}$

7. $36^{3/2}$

8. $16^{3/4}$

9. $(-32)^{2/5}$

10. $(-125)^{5/3}$

11. $256^{-5/4}$

12. $27^{-4/3}$

In Exercises 13 – 18, rewrite each radical using rational exponents.

13. $\sqrt[5]{16,807}$

14. $\sqrt[6]{15,625}$

15. $12^{-1/3}$

16. $92^{1/5}$

17. $6561^{5/4}$

18. $113^{-3/4}$

In Exercises 18–23, find the real solution(s) of the equation. Round your answer to two decimal places when appropriate.

19. $x^4 = 256$

20. $3x^3 = 375$

21. $(x - 6)^2 = 40$