

7-3 Skills Practice**Rational Exponents**

Write each expression in radical form, or write each radical in exponential form.

1. $(8x)^{\frac{1}{2}}$

2. $6z^{\frac{1}{2}}$

3. $\sqrt{19}$

4. $\sqrt{11}$

5. $19x^{\frac{1}{2}}$

6. $\sqrt{34}$

7. $\sqrt[27]{g}$

8. $33gh^{\frac{1}{2}}$

9. $\sqrt[13]{abc}$

Simplify.

10. $\left(\frac{1}{16}\right)^{\frac{1}{4}}$

11. $\sqrt[5]{3125}$

12. $729^{\frac{1}{3}}$

13. $\left(\frac{1}{32}\right)^{\frac{1}{5}}$

14. $\sqrt[6]{4096}$

15. $1024^{\frac{1}{5}}$

16. $\left(\frac{16}{625}\right)^{\frac{1}{4}}$

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

18. $117,649^{\frac{1}{6}}$

7-3 Practice**Rational Exponents**

Write each expression in radical form, or write each radical in exponential form.

1. $\sqrt{13}$

2. $\sqrt{37}$

3. $\sqrt[17]{x}$

4. $(7ab)^{\frac{1}{2}}$

5. $21z^{\frac{1}{2}}$

6. $13(ab)^{\frac{1}{2}}$

Simplify.

7. $\left(\frac{1}{81}\right)^{\frac{1}{4}}$

8. $\sqrt[5]{1024}$

9. $512^{\frac{1}{3}}$

10. $\left(\frac{32}{1024}\right)^{\frac{1}{5}}$

11. $\sqrt[4]{1296}$

12. $3125^{\frac{1}{5}}$