

Learning Activity – Section 3.1 & 4.5 – Radicals & Rational Exponents

Names: _____

Simplify, if possible. If not possible, conclude with an appropriate statement.

1. $-\sqrt{49}$

2. $\sqrt[3]{64}$

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

4. $\sqrt{-36}$

5. $\sqrt[4]{16}$

6. $\sqrt[5]{100,000}$

7. $\sqrt{80}$

8. $\sqrt[3]{81}$

9. $\sqrt[4]{16}$

10. $\sqrt{54}$

11. $\sqrt{162}$

12. $\sqrt[3]{7,000}$

Write each expression in radical notation and then simplify, if possible. If not possible, conclude with an appropriate statement.

13. $-36^{1/2}$

14. $(-64)^{1/3}$

15. $16^{-3/2}$

16. $-125^{2/3}$

17. $(-144)^{3/2}$

18. $27^{-4/3}$