Algebra 1: 5.5 HW – Part 1 **Name** _____ **Period** _____
Radical Exponents

I. Vocabulary. Match each definition with its corresponding term.

1. The number "b" in the expression $\sqrt[n]{b}$
2. The number "a" when $a^3 = b$
3. The number "n" in the expression $\sqrt[n]{b}$
4. The number "a" when $a^n = b$

A. cube root
B. index
C. nth root
D. radicand

II. Evaluate each expression.

5. $\sqrt[3]{216}$ = 6
   Because $6^3 = 216$
6. $\sqrt[3]{64}$ =
   Because
7. $\sqrt[3]{-343}$ =
   Because
8. $\sqrt[5]{32}$ =
   Because
9. $\sqrt[4]{625}$ =
   Because
10. $\sqrt[7]{-128}$ =
    Because
11. $\sqrt[6]{729}$ =
    Because
12. $\sqrt[5]{-1024}$ =
    Because
13. $\sqrt[5]{-243}$ =
    Because