

Name: _____

Date: _____

UNIT 4 • EXPONENTIAL FUNCTIONS

N–RN.2

Lesson 4.1: Applying the Properties of Integer Exponents

Practice 4.1: Applying the Properties of Integer Exponents

A

For problems 1–3, evaluate each exponential expression.

1. 7^{-2}

2. $\frac{3}{4^{-2}}$

3. After 4 rounds of a table tennis tournament, there are $32 \cdot 2^{-3}$ teams left in the competition. How many teams remain?

For problems 4–10, simplify each exponential expression. Write the expression with only positive exponents.

4. y^{-12}

5. $a^{-2} \cdot a^8$

6. $x^{-3} \cdot y^0$

7. $\frac{x^4}{x^{13}}$

8. $(p^{-3})^{-6}$

9. $\frac{m^8 n^3}{m^5 n^7}$

10. $x^{14} \cdot (x^{-5})^2$