

Tiny Worlds Answer Key

1. Rewrite: $\frac{1}{10^3}$ / Final

expression: $\frac{4}{10^3}$

2. $\frac{7}{x^2}$

3. 2^5

4. $\frac{6}{y^3}$

5. $\frac{1}{10^2}$

6. $\frac{1}{m^4}$

7. $\frac{q}{p^3}$

8. $2a^3$

Teacher's Guide

- Quick implementation tips
 - Remind students to rewrite negative exponents first before simplifying.
 - Encourage students to leave answers with positive exponents only.
- Differentiation strategies
 - Provide a reference card showing $a^{-n} = \frac{1}{a^n}$.
 - Ask advanced students to identify which exponent law is used in each problem after rewriting.
- Engagement ideas
 - Discuss how scientists use negative exponents to describe very small measurements.
 - Have students explain which real-world example they found most interesting and why.
- Extension activities
 - Ask students to write a short real-world problem involving a negative exponent and exchange it with a partner.
 - Challenge students to rewrite one answer in scientific notation while keeping all exponents positive where appropriate.