Lesson 6.2 Practice: Laws of Exponents

School Launch · Pre-Algebra · Unit 6: Exponents and Square Roots · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Simplify using the laws of exponents: $y^{5} \cdot y^{5}$. EASY

2. Simplify using the laws of exponents: $x^{5} \cdot x^{9}$. EASY

3. Simplify using the laws of exponents: $y^{9} \cdot y^{2}$. EASY

4. Simplify using the laws of exponents: $\frac{y^{9}}{y^{7}}$. MEDIUM

5. Simplify using the laws of exponents: $\frac{b^{10}}{b^{5}}$. MEDIUM

6. Simplify using the laws of exponents: $\frac{y^{11}}{y^{6}}$. MEDIUM

7. Simplify using the laws of exponents: $\frac{y^{9}}{y^{2}}$. MEDIUM

8. Simplify using the laws of exponents: $\left(4y^{8}\right)^{3}$. HARD

9. Simplify using the laws of exponents: $\left(5x^{3}\right)^{3}$. HARD

10. Simplify using the laws of exponents: $\left(4a^{9}\right)^{4}$. HARD