Lesson 7.1 Practice: Properties of Exponents

School Launch · Algebra I · Unit 7: Exponents and Exponential Functions · 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: $x^{3} \cdot x^{6}$. EASY

2. Simplify: $x^{2} \cdot x^{2}$. EASY

3. Simplify: $x^{3} \cdot x^{4}$. EASY

4. Simplify: $\frac{(2x^{5}y)^{4}}{x^{5}y^{3}}$. MEDIUM

5. Simplify: $\frac{(4x^{4}y)^{4}}{x^{2}y^{2}}$. MEDIUM

6. Simplify: $\frac{(3x^{3}y)^{3}}{x^{5}y^{4}}$. MEDIUM

7. Simplify: $\frac{(4x^{6}y)^{3}}{x^{7}y^{4}}$. MEDIUM

8. Simplify: $\left(\frac{4x^{4}}{y^{4}}\right)^{2} \cdot \frac{y^{9}}{x^{2}}$. HARD

9. Simplify: $\left(\frac{3x^{2}}{y^{2}}\right)^{5} \cdot \frac{y^{11}}{x^{6}}$. HARD

10. Simplify: $\left(\frac{2x^{2}}{y^{1}}\right)^{2} \cdot \frac{y^{3}}{x^{6}}$. HARD