**Lesson 1.3b Homework Practice**

***Powers of Monomials***

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**Simplify.**

 **1.** $(6t^{5})^{2}$ **2.** $(4w^{9})^{4}$ **3.** $(12k^{6})^{3}$ **4.** $(15m^{8})^{3}$

 **5.** $(4d^{3}e^{5})^{7}$ **6.** $(-4r^{6}s^{15})^{4}$ **7.** $[(7^{2})^{2}]^{2}$ **8.** $[(3^{2})^{2}]^{3}$

 **9.** $(\frac{3}{5}a^{6}b^{9})^{2}$ **10.** $(4x^{2})^{3}(3x^{6})^{4}$ **11.** $(0.6p^{5})^{3}$ **12.** $(\frac{1}{5}w^{5}x^{3})^{2}$

**GEOMETRY Express the area of each square below as a monomial.**

 **13. 14.**





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 **15. MEASUREMENT** In the Metric System, you would need to have $(10^{4})^{2}$ grams to equal 1 metric ton. Simplify this measurement by multiplying the exponents, then simplify by finding the actual number of grams needed to equal 1 metric ton.

 **16. GAMING** A video-game designer is using the expression $6n^{3}$ in a program to determine points earned, where *n* is the game level. Simplify the expression for the $n^{2}$ level.