

Lesson 4 Homework Practice

Powers of Monomials

Simplify.

1. $(6t^5)^2$

2. $(4w^9)^4$

3. $(12k^6)^3$

4. $(15m^8)^3$

5. $(4d^3e^5)^7$

6. $(-4r^6s^{15})^4$

7. $[(7^2)^2]^2$

8. $[(3^2)^2]^3$

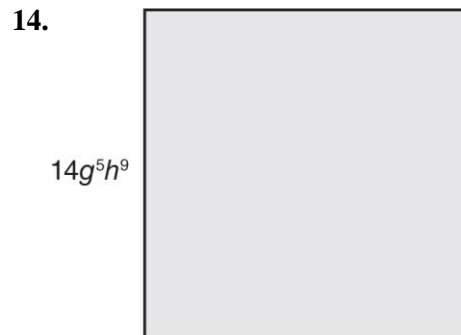
9. $(\frac{3}{5}a^6b^9)^2$

10. $(4x^2)^3(3x^6)^4$

11. $(0.6p^5)^3$

12. $(\frac{1}{5}w^5x^3)^2$

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



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.