

Name: _____

Period: _____ Date: _____

Exponent Rules

Section I. Simplify each expression. Leave all answers with positive exponents. Be careful, the problems in each row are similar, so look at each one carefully.

1. $k^7 \cdot k^2$

2. $4k^7 \cdot 5k^2$

3. $4k^7m^2 \cdot 5k^2m^4$

4. $(4k^7)^2 \cdot (5k^2)^3$

5. $\frac{y^8}{y^3}$

6. $\frac{15y^8}{27y^3}$

7. $\frac{15y^8z^4}{27y^3z^{12}}$

8. $\frac{15y^8(z^4)^4}{27(y^3)^3z^{12}}$

7. $(3a)^3$

8. $(3a^5b^3)^3$

9. $(3a^5b^3)^3 \cdot (2a^4)^5$

10. $(3a)^0$

10. $(7h^8)^2$

11. $\frac{(7h^8)^2}{7h^3}$

12. $\left(\frac{7h^8}{7h^3}\right)^2$

13. $(-7h^8)^0$

13. $2x^2 \cdot 3x^6$

14. $(2x^2)^4 \cdot (3x^6)^3$

15. $(2x^2 \cdot 3x^6)^2$

16. $(-2x)^3 \cdot (3x)^2$