Properties of Exponents A (Multiplying and Dividing)

Name:_____ Period_____

Directions: Simplify each expression so that the exponents are positive.

1. $\frac{24a^3b^6c^4}{6ab^3c^3}$

2. $(3d^3e^4)(5de^3)$

3. $\frac{-30h^5k^7}{3h^3k^3}$

4. $(-4m^2n^3)(6m^4n^2p^5)(2mn^4p^3)$

Directions: Simplify each expression so that the exponents are positive. Show your work.

5. $(5q^{-2}r^4)(4q^{-1}r^{-3})(-2q^4r^{-4})$

6. $\frac{45t^{-3}u^4}{9t^5u^8}$

7. $\frac{-28v^2w^7}{-4v^{-3}w^3}$

8. $(-3x^{-4}y^3z^2)(2x^{-3}y^{-2}z^3)(-4xy^{-4}z^{-1})$

9. $(7a^6b^{-4})(3a^{-5}b^{-1})(5a^{-3}b^8)$

10. $\frac{108c^5d^{-4}}{9c^{-3}d^{-1}}$

Directions: **Make the problem.** You have to make a problem with the answers below. For #11, it must be a multiplication problem with at least 2 negative exponents. With #12, it must be a division problem with at least 2 negative exponents.

11. $8q^2r^5s$

12. $-\frac{6x^3z^7}{y^2}$