

Exponent Rules

Name: _____

Quiz

Simplify the following using the exponent rules.

_____ 1. $\frac{9a^2b^7c^3}{2a^5b^4c^5}$

_____ 2. $\frac{(5x)^{-3}y^{-2} \cdot 5z}{x^2y^2}$

_____ 3. $-3(km)^4$

_____ 4. $(2a^3)^6$

_____ 5. $[(k^5)^2]^3$

_____ 6. $5j^4(-9j^5)$

_____ 7. $\left(\frac{4}{5}\right)^2$

_____ 8. $\frac{4a^5b^3}{6a^2d}$

_____ 9. $\frac{6p^{-2}}{p^2}$

_____ 10. $(2xy)^7$

_____ 11. $\frac{5 \cdot 6 - (3 + 4)}{-2^2 - 2^2 + 3^2}$

_____ 12. $25 \div 5 \cdot 4 - 15 \cdot 8$

_____ 13. $\frac{3^2 - 4 \cdot 3 + 4}{9^2 - 4}$

If $a = 9$, $b = 2$, $c = 5$, $d = 3$.

_____ 14. $\frac{5b + cd}{b + d}$

_____ 15. $\frac{a + c^2}{(b + d)^2 + a}$