

*Do all problems. Show all work to get given answers.

Algebra I: Chapter 7

Name _____

Fill in the blank with the correct word.

1. When multiplying like _____, _____ exponents.
2. When raising a _____ to a _____, _____ exponents.
3. When raising a _____ to a _____, raise each _____ to the power.

Simplify the expression.

4. $y^3 \cdot y \cdot y^4$

5. $[(b + 1)^2]^3$

$32a^5b^5$ 6. $(2ab)^5$

$-27m^{24}$ 7. $(3m^7)^3 (-m^3)$

$128p^{21}$ 8. $(4p^7)^2 \cdot (2p^5)^3$

$-16x^6y^9$ 9. $-(4xy^3)^2(x^2y)^3$

10^{21} 10. The order of magnitude of the mass of Earth's atmosphere is 10^{18} kilograms. The order of magnitude of the mass of Earth's oceans is 10^3 times greater. What is the order of magnitude of the mass of Earth's oceans?