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GSE Algebra 1 Day 01 - Properties of Exponents Notes Day 1

**Exponent Properties**

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| **What you need to know & be able to do** | **Things to remember** | **Example #1** | **Example #2** |
| **Product of Powers**an $⋅$ am = an + m | Multiply coefficients. Keep the base the same. Add the exponents | 1. Simplify  | 2. Simplify  |
| **Power to Another Power**(am)n = amn | Raise the coefficient to the power. Keep the base the same. Multiply the exponents. | 3. Simplify  | 4. Simplify  |
| **Quotient of Powers**$$\frac{a^{m}}{a^{n}}=a^{m-n}$$ | Divide the coefficients. Keep the base the same. Subtract the exponents.  | 5. Simplify | 6. Simplify  |
| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_GSE Algebra 1 Day 02 - Properties of Exponents Notes Day 2**Exponent Properties** |
| **Zero Exponents**a0 = 1**Negative Exponents**$a^{-n}$ $=\frac{1}{a^{n}}$ | Any number or variable to the zero power is 1.**Example:**Any number or variable to a negative exponent needs to move to a different part of the fraction.**Example:** | 7. Simplify  | 8. Simplify  |
| 9. Simplify   | 10. Simplify    |

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_

GSE Algebra 1 Day 02 - Properties of Exponents Practice

**Practice Problems: Simplify each expression. Assume no denominator equals zero.**

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