

Properties of Exponents

Guided Notes

★ Rule 1: When multiplying exponentials that have the same base, add the exponents together.

1) $4^3 \cdot 4^6 =$

2) $x^2 \cdot x^7 =$

3) $5^{-2} \cdot 5^{-3} =$

★ Rule 2: When dividing exponentials that have the same base, subtract the exponents.

4) $\frac{3^5}{3^2} =$

5) $\frac{z^8}{z^4} =$

6) $\frac{x^4 y^9}{x^3 y^5} =$

★ Rule 3: If one exponential is raised to another exponent, multiply the exponents together.

7) $(x^4)^6 =$

8) $(3^2)^9 =$

9) $(x^3 y^5)^2 =$