

Name _____
Mrs. Roubos

Date _____
8R Period _____

Addition and Subtraction of Scientific Numbers

I. Same exponents:

A. Steps:

- 1) _____ the coefficients
- 2) Place the "common" _____ and _____ next to the expression from step one.
- 3) _____ the coefficients.
- 4) Make Sure your final answer is in _____.

B. Examples: Perform the indicated operation. Write your answer in scientific notation.

1) $(2.56 \times 10^3) + (6.964 \times 10^3)$	2) $(9.49 \times 10^5) - (4.863 \times 10^5)$
3) $(3.5 \times 10^6) + (6.31 \times 10^6)$	4) $(2.5 \times 10^3) - (1.275 \times 10^3)$

II. Different exponents:

A. Steps:

1) Take the scientific number with the _____ exponent and convert it to the _____ by moving the decimal point to the _____. (We do this so that the final answer will then already be in proper scientific notation.)

2) Follow the same steps from _____.

****The exponents MUST be the same in order to add or subtract****

B. Examples: Perform the indicated operation. Write your answer in scientific notation.

1) $(3.1 \times 10^5) + (3.38 \times 10^4)$	2) $(4.67 \times 10^3) - (8.9 \times 10^2)$
3) $(3.45 \times 10^3) + (4.65 \times 10^4)$	*4) $(7.45 \times 10^{-3}) + (2.6 \times 10^{-1})$
*5) $(3.2 \times 10^{-5}) - (4.9 \times 10^{-8})$	