10.7

Operations in Scientific Notation (Day 1)

Rules for Operations

To make scientific notation have a bigger exponent:

- **Move the decimal left**
- **Add the number of times you moved the decimal to the exponent.**

1) 2.4×10^{3}

2) 7.1×10^{7}

3) 8.2×10^{-9}

4) 4.6×10^{-4}

Fixing non-scientific notation

1) 35×10^{8}

2) 215×10^{9}

3) $4,587 \times 10^{2}$

Fixing non-scientific notation

4) 0.15×10^{7}

5) 0.00057×10^{9}

6) $.05782 \times 10^{2}$

Find the sum or difference. Write your answer in scientific notation.

a. $(4.6 \times 10^3) + (8.72 \times 10^3)$

b. $(3.5 \times 10^{-2}) - (6.6 \times 10^{-3})$

Find the sum or difference. Write your answer in scientific notation.

c. $(2.1 \times 10^{-4}) + (9.74 \times 10^{-4})$

d. $(4.7 \times 10^{5}) - (7.2 \times 10^{3})$

Find the sum or difference. Write your answer in scientific notation.

e. $(8.2 \times 10^{2}) + (3.41 \times 10^{-1})$

Practice

1) $\left(17\times10^{12}\right)+\left(255\times10^{12}\right)$

2) $\left(340\times10^{-6}\right)-\left(285\times10^{-6}\right)$

Practice

3) $\left(7.545\times10^{8}\right)+\left(4.55\times10^{7}\right)$

4) $\left(8.7\times10^{7}\right)-\left(5.5\times10^{6}\right)$