

Scientific Notation

- more convenient way to express very large / small numbers
- away to express your final answer with the correct significant digits.

$$n \times 10^? \leftarrow \text{integers}$$

$$\pm (1 \leq n < 10)$$

1. 1.5690×10^2 (156.90)

2. 1.2×10^4

3. 3.45×10^{-2}

4. 8.90×10^{-3} (0.00890)

5. $1.23 \times 10^6 = 1230000$

6. $2.5 \times 10^{-3} = 0.0025$

7. 15400

8. 0.567

Multiplication + Division

9. $\frac{(6.6 \times 10^{-8})}{(3.3 \times 10^{-4})} = 2.0 \times 10^{-4}$

$\frac{x^5}{x^3} = x^2$
 $-8 - (-4)$
 \downarrow
 -4

14. $(2.5 \times 10^{-6})(3.0 \times 10^{-7}) = 7.5 \times 10^{-13}$

$-6 + (-7)$
 \downarrow
 -13

Addition + Subtraction

13. $(1.56 \times 10^{-7}) + (2.43 \times 10^{-8})$
 must match

$15.6 \times 10^{-8} + 2.43 \times 10^{-8}$

18.03×10^{-8}

1.803×10^{-7}

$$\begin{array}{r} 123.4 \\ 4.26 \\ 31 \\ + 1452.1 \\ \hline \end{array}$$

line up the place values.

EE or EXP never EVER use $\times 10^x$