

## Scientific Notation

**1** What is the order of magnitude of these numbers?

$$5.1 \times 10^4 \quad \underline{4}$$

$$1.63 \times 10^{-10} \quad \underline{-10}$$

**2** Compare these numbers.

$$1 \times 10^8 \quad (>) \quad 1 \times 10^{-8}$$

**3** Compare these numbers.

$$8.5 \times 10^{23} \quad (>) \quad 9.99 \times 10^{21}$$

**4** Compare these numbers.

$$1 \times 10^3 \quad (=) \quad 1,000$$

**5** Convert this number into Scientific Notation.

$$\begin{array}{ccccccc} 38,500,000. \\ \hline 7 & 6 & 5 & 4 & 3 & 2 & 1 \end{array} \quad \begin{array}{l} \text{shift} \\ \text{left} \\ \leftarrow \end{array}$$

$$\textcircled{3.85 \times 10^7}$$

**6** Convert this number into regular form.

$$8.1 \times 10^4$$

$$\begin{array}{cccc} 8.1000. \\ \hline 1 & 2 & 3 & 4 \end{array} \quad \begin{array}{l} \text{shift} \\ \text{right} \\ \rightarrow \end{array}$$

$$\textcircled{81,000}$$

**7** Convert this number into Scientific Notation.

$$\begin{array}{ccccc} 0.000045 \\ \hline 1 & 2 & 3 & 4 & 5 \end{array} \quad \begin{array}{l} \text{shift} \\ \text{right} \\ \rightarrow \end{array}$$

$$\textcircled{4.5 \times 10^{-5}}$$

**8** Convert this number into regular form.

$$7.04 \times 10^{-3}$$

$$\begin{array}{ccc} 0.007.04 \\ \hline 3 & 2 & 1 \end{array} \quad \begin{array}{l} \text{shift} \\ \text{left} \\ \leftarrow \end{array}$$

$$\textcircled{0.00704}$$

**9** Convert this number into Scientific Notation.

$$\begin{array}{cccccccccccc} 6,250,000,000,000. \\ \hline 12 & 11 & 10 & 9 & 8 & 7 & 6 & 5 & 4 & 3 & 2 & 1 \end{array} \quad \begin{array}{l} \text{shift} \\ \text{left} \\ \leftarrow \end{array}$$

$$\textcircled{6.25 \times 10^{12}}$$

**10** Convert this number into regular form.

$$7 \times 10^7$$

$$\begin{array}{cccccccc} 7.0000000. \\ \hline 1 & 2 & 3 & 4 & 5 & 6 & 7 \end{array} \quad \begin{array}{l} \text{shift} \\ \text{right} \\ \rightarrow \end{array}$$

$$\textcircled{70,000,000}$$