

## 8.4 Key Concepts 2 Scientific Notation Worked Example

**Example:** Evaluate  $(5.2 \times 10^{10})(3.5 \times 10^{-7})$ . Write your answer in scientific notation.

**Solution:** Multiply the numbers. Then, multiply the powers using the exponent rules. If necessary, write the answer in scientific notation.

$$\begin{aligned}(5.2 \times 10^{10})(3.5 \times 10^{-7}) &= 5.2 \times 3.5 \times 10^{10} \times 10^{-7} \\ &= 18.2 \times 10^3 \\ &= 1.82 \times 10^4\end{aligned}$$

**Practice:**

1. Evaluate  $(8.4 \times 10^8)(1.1 \times 10^3)$ .

2. Evaluate  $\frac{6.3 \times 10^{20}}{1.8 \times 10^{12}}$ .

Answers: 1.  $9.24 \times 10^{11}$  2.  $3.5 \times 10^8$