

# Guided Practice

## 5.7

NAME \_\_\_\_\_

Module 5    Decimal Operations, Exponents, and Powers  
Lesson 7    Scientific Notation

### Set 1

Write as a Power of 10.

- 1    1,000                      2    0.0001

Write in standard form.

- 3     $10^6$                       4     $10^{-8}$

### Set 2

Write in standard form.

- 1     $102.5 \times 10^2$                       2     $1,087 \times 10^{-3}$

- 3    Write 9.307 in expanded form.


**Set 3**

**Tell whether the number is written in scientific notation.**

1  $6.0 \times 10^4$

2  $30 \times 10^5$

**Set 4**

1 Light travels at a speed of about 300,000 kilometers per second. Write the number 300,000 in scientific notation.

2 The diameter of Saturn is approximately  $1.2 \times 10^5$  kilometers. Write  $1.2 \times 10^5$  in standard notation.

3 The diameter of the Sun is approximately  $1.4 \times 10^6$  kilometers. Write  $1.4 \times 10^6$  in standard notation.

NAME \_\_\_\_\_

**Module 5**      **Decimal Operations, Exponents, and Powers**  
**Lesson 7**      **Scientific Notation**

4

The wavelength of red light is 0.00000075 m. Write this number in scientific notation.

5

The mass of a dust particle is 0.000000000753 kilograms. Write this number in scientific notation.

6

The radius of a hydrogen atom is  $2.5 \times 10^{-11}$  meters. Write this number in standard notation.