NAME_____

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

Challenge Problems 5.7

Set 1

1. Nadia wrote the number 54×10^4. Explain why the number is not in scientific notation. Then, write 54×10^4 in scientific notation.

Set 2

1. Vance wrote the number 0.032×10^{-3}. Explain why the number is not in scientific notation. Then, write the number in scientific notation.

2. Write the expression $(4.2 \times 10^3) + (9.1 \times 10^{-4})$ as a number in standard form.

Possible Answers

Set 1

1. 54 is greater than 10
   $(54 \div 10) \times (10^4 \times 10)$
   5.4×10^5

Set 2

1. 0.032 is less than 1
   $(0.032 \times 100) \times (10^{-3} \div 100)$
   3.2×10^{-5}

2. $(4.2 \times 10^3) + (9.1 \times 10^{-4})$
   4.200 + 0.0009 .1
   1 2 3 −4 −3 −2 −1

   4200 + 0.00091
   4200.00091