

Name \_\_\_\_\_

Date \_\_\_\_\_

**LESSON**  
**8.4****Practice B***For use with pages 512–519***Write the number in scientific notation.**

1. 10.4
2. 6751
3. 0.54
4. 0.000103
5. 415,620
6. 0.08104
7. 3,412,000
8. 525.5
9. 104.25
10. 0.0000456
11. 0.000000207
12. 23,551

**Write the number in standard form.**

13.  $15.8 \times 10^4$
14.  $3.21 \times 10^8$
15.  $450.21 \times 10^7$
16.  $8.1045 \times 10^5$
17.  $17.22 \times 10^6$
18.  $1.012 \times 10^2$
19.  $8.12 \times 10^{-4}$
20.  $4.014 \times 10^{-7}$
21.  $8.1025 \times 10^{-3}$
22.  $3.12056 \times 10^{-9}$
23.  $1.211 \times 10^{-2}$
24.  $7.00135 \times 10^{-5}$

**Order the numbers from least to greatest.**

25.  $1.3759 \times 10^4$ ; 14,205;  $9.287 \times 10^3$ ;  $3.0214 \times 10^4$
26. 0.16;  $2.5 \times 10^{-3}$ ;  $1.04 \times 10^{-3}$ ; 0.0985
27.  $8.79 \times 10^2$ ; 1146;  $1.0085 \times 10^3$ ; 1023
28.  $1.2 \times 10^{-5}$ ; 0.001023;  $1.045 \times 10^{-3}$ ; 0.01036

**LESSON**  
**8.4**
**Practice B** *continued*  
*For use with pages 512–519*

**Evaluate the expression. Write your answer in scientific notation.**

29.  $(6 \times 10^8)(5 \times 10^{-2})$

30.  $\frac{4.5 \times 10^{-5}}{9 \times 10^{-2}}$

31.  $(2 \times 10^{-5})^5$

32. **Pixels** The images on a computer screen are made up of more than 5000 pixels, or dots, per square inch. How many pixels are on a computer screen that measures 108 square inches? Write your answer in scientific notation.

33. **Oregon** Oregon has an area of approximately  $2.52 \times 10^5$  square kilometers. In 2000, the population of Oregon was approximately  $3.42 \times 10^6$  people. How many people were there per square kilometer in Oregon in 2000?

34. **Uranus' Moons** The table below shows the masses in kilograms of some of Uranus' moons.

Moon	Miranda	Titania	Ariel	Oberon	Umbriel
Mass (kg)	$6.6 \times 10^{19}$	$3.52 \times 10^{21}$	$13.5 \times 10^{20}$	$30.1 \times 10^{20}$	$11.7 \times 10^{20}$

- a. Write the moons in order of largest mass to smallest mass.
- b. How many times larger is the moon of largest mass than the moon of smallest mass?