

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.

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

- 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?