

LESSON
8.4**Practice B**

For use with pages 512–519

LESSON 8.4

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

Order the numbers from least to greatest.

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

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 2.52×10^5 square kilometers. In 2000, the population of Oregon was approximately 3.42×10^6 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)	6.6×10^{19}	3.52×10^{21}	13.5×10^{20}	30.1×10^{20}	11.7×10^{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?