

8-3 Skills Practice

Scientific Notation

Express each number in standard notation.

1. 4×10^3

2. 2×10^8

3. 3.2×10^5

4. 3×10^{-6}

5. 9×10^{-2}

6. 4.7×10^{-7}

ASTRONOMY Express the number in each statement in standard notation.

7. The diameter of Jupiter is 1.42984×10^5 kilometers.

8. The surface density of the main ring around Jupiter is 5×10^{-6} grams per centimeter squared.

9. The minimum distance from Mars to Earth is 5.45×10^7 kilometers.

Express each number in scientific notation.

10. 41,000,000

11. 65,100

12. 283,000,000

13. 264,701

14. 0.019

15. 0.000007

16. 0.000010035

17. 264.9

18. 150×10^2

Evaluate. Express each result in scientific notation.

19. $(3.1 \times 10^7)(2 \times 10^{-5})$

20. $(5 \times 10^{-2})(1.4 \times 10^{-4})$

21. $(3 \times 10^3)(4.2 \times 10^{-1})$

22. $(3 \times 10^{-2})(5.2 \times 10^9)$

23. $(2.4 \times 10^2)(4 \times 10^{-10})$

24. $(1.5 \times 10^{-4})(7 \times 10^{-5})$

25. $\frac{5.1 \times 10^6}{1 \times 10^2}$

26. $\frac{8 \times 10^{-5}}{4 \times 10^{-3}}$