Extra Practice

Lesson 8-3

(pages 425–430)

Express each number in standard notation.

1. 2.6×10^5 **260,000**
2. 4×10^{-3} **0.004**
3. 6.72×10^3 **6720**
4. 4.93×10^{-4} **0.000493**
5. 1.654×10^{-6} **0.000001654**
6. 7.348×10^7 **73,480,000**

Express each number in scientific notation. **13. 1.21212×10^{-1}**

7. 6500 **6.5×10^3**
8. 953.56 **9.5356×10^2**
9. 0.697 **6.97×10^{-1}**
10. 843.5 **8.435×10^2**
11. 568,000 **5.68×10^5**
12. 0.0000269 **2.69×10^{-5}**
13. 0.121212
14. 543×10^4 **5.43×10^6**
15. 739.9×10^{-5} **7.399×10^{-3}**
16. 6480×10^{-2} **6.48×10^1**
17. 0.366×10^{-7} **3.66×10^{-8}**
18. 167×10^3 **1.67×10^5**

Evaluate. Express each result in scientific and standard notation. **19–27. See margin.**

19. $(2 \times 10^5)(3 \times 10^{-8})$
20. $\frac{4.8 \times 10^3}{1.6 \times 10^1}$
21. $(4 \times 10^2)(1.5 \times 10^6)$
22. $\frac{8.1 \times 10^2}{2.7 \times 10^{-3}}$
23. $\frac{7.8 \times 10^{-5}}{1.3 \times 10^{-7}}$
24. $(2.2 \times 10^{-2})(3.2 \times 10^5)$
25. $(3.1 \times 10^4)(4.2 \times 10^{-5})$
26. $(78 \times 10^6)(0.01 \times 10^5)$
27. $\frac{2.31 \times 10^{-2}}{3.3 \times 10^{-3}}$

19. 6×10^{-3}; 0.006
20. 3.0×10^2; 300
21. 6.0×10^8; 600,000,000
22. 3.0×10^5; 300,000
23. 6.0×10^2; 600
24. 7.04×10^3; 7040
25. 1.302×10^0; 1.302
26. 7.8×10^{10}; 78,000,000,000
27. 7.0×10^0; 7