PRACTICE

Write each number in scientific notation.

1. 58,927

5.8927×10^4

2. 1,304,000,000

1.304×10^9

3. 0.000487

4.87×10^{-4}

4. 0.000028

2.8×10^{-5}

5. 0.000059

5.9×10^{-5}

6. 6,730,000

6.73×10^6

7. 13,300

1.33×10^4

8. 0.0417

4.17×10^{-2}

Write each number in standard notation.

9. 4×10^5

400,000

10. 1.8499×10^9

1,849,900,000

11. 8.3×10^{-4}

.00083

12. 3.582×10^{-6}

.000003582

13. 2.97×10^{-2}

.0297

14. 6.41×10^3

6,410

15. 8.456×10^7

84,560,000

16. 9.06×10^{-5}

.0000906

Circle the correct answer.

17. 8×10^5 is 2 / 20 / 200 / ⟨2,000⟩ times as great as 4×10^2.

18. 9×10^{10} is 30 / 300 / ⟨3,000⟩ / 30,000 times as great as 3×10^7.

19. 4×10^{-5} is 0.02 / ⟨0.2⟩ / 2 / 20 times as great as 2×10^{-4}.

20. 4×10^{-12} is 0.00001 / ⟨0.0001⟩ / 10 / 1000 times as great as 4×10^{-8}.

21. The mass of a proton is about 1.7×10^{-24} g. The mass of a neutron is about the same as a proton. The nucleus of an atom of carbon has 6 protons and 6 neutrons. The mass of the nucleus is about 2×10^{-26} units. Circle the best choice for the units this measurement is given in: ⟨g⟩ / kg / tons

$12 \cdot 1.7 \times 10^{-24}$ g

20.4×10^{-24} g

2.04×10^{-23} g

2. The air distance between Los Angeles, California, and New York City, New York, is about 3.9×10^3 units. Circle the best choice for the units this measurement is given in: cm / m / ⟨km⟩

$1g = .001 kg$

$1g = 1 \times 10^{-3}$

$2.04 \cdot 1 \times 10^{-23} \times 10^{-3}$

2.04×10^{-26} kg