

Extra Practice Scientific Notation

Write each number in standard form. (Examples 1 and 2)

1. $2.3 \times 10^4 =$ _____

2. $9.45 \times 10^6 =$ _____

3. $4.13 \times 10^{-5} =$ _____

4. $5.5 \times 10^{-4} =$ _____

5. A calculator screen shows a number in scientific notation as $3.6\text{E}-5$. Write this number in standard form. (Example 3)

6. A calculator screen shows a number in scientific notation as $1.37\text{E}7$. Write this number in standard form. (Example 3)

7. A calculator screen shows a number in scientific notation as $4.67\text{E}-8$. Write this number in standard form. (Example 3)

8. A calculator screen shows a number in scientific notation as $8\text{E}10$. Write this number in standard form. (Example 3)

Write each number in scientific notation. (Examples 4 and 5)

9. 3,230,000 = _____

10. 0.0000085 = _____

11. 211,700,000,000 = _____

12. 0.0000000972 = _____

13. A bull weighs 1,700 pounds. Is it more appropriate to express the bull's weight as 1,700 pounds or 2.72×10^4 ounces? Explain your reasoning. (Example 6)

14. The diameter of a quarter is 24.26 millimeters. Is it more appropriate to post the diameter as 24.26 millimeters or 2.426×10^{-5} kilometers? Explain your reasoning. (Example 6)

15. A company makes 42,786,950 milliliters of shampoo each month. Write an estimation in scientific notation for the amount of shampoo. (Example 7)

16. The distance from Earth to the sun is 148,080,569 kilometers. Write an estimation in scientific notation for the distance from Earth to the sun. (Example 7)

17. There are 3,153,600 seconds in a year. Write an estimation in scientific notation for the number of seconds in a year. (Example 7)

18. A sea otter is a mammal with the thickest fur. It can have 943,725 hairs per square inch. Write an estimation in scientific notation for the number of hairs. (Example 7)