

Independent Practice

5.7

NAME _____

Module 5 Decimal Operations, Exponents, and Powers
Lesson 7 Scientific Notation

Write as a power of 10.

1. 100,000

2. 0.0001

3. 1,000,000

4. 0.001

Evaluate.

5. 10^8

6. 10^{-5}

7. 10^{-1}

8. 10^4

Multiply.

9. 4.5×10^5

10. $1,231 \times 10^{-5}$

11. 608.9×10^{-2}

12. 0.02×10^7

Write in expanded form.

13. 7.143

14. 42.71

Is the expression written in scientific notation? If not, write it in scientific notation.

15. 50×10^{-5}

16. 1.2×10^9

17. The wavelength of x-rays is about 10^{-10} m. Write this number in standard form.

18. The length of the Great Wall of China is about 6,400 km. Write this number in scientific notation.

Write each expression as a number in standard form.

19. $(5.3 \times 10^4) + (6.6 \times 10^{-2})$

20. $(7.9 \times 10^{-2}) + (2.3 \times 10^3)$

Journal

1. Explain how to write an integer power of 10.
2. Explain how to evaluate 10^n for any integer n .
3. Explain how to multiply by a power of 10 with an integer exponent.
4. Explain how to convert a number in standard notation to scientific notation.

Cumulative Review

Order each set of numbers from least to greatest.

1. 0.54, -0.51, -0.54, $\frac{56}{100}$

2. -0.65, -0.81, -0.35, $-\frac{6}{10}$

Add.

3. $6.78 + 0.4$

4. $4.66 + 1.21$

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Subtract.

5. $2.3 - 0.23$

6. $7.11 - 3.345$

Evaluate each expression and check for reasonableness of the answer.

7. 3.9×8.1

8. 14.5×0.77

9. $42 \div 96$

10. $55.4 \div 2$

Evaluate.

11. -4^2

12. $(-3)^4$

13. 6 to the 2nd power

14. 2 to the 6th power

15. $5^2 - 3^3$

16. $-95(7 - 8)^{11}$

Additional Work Area