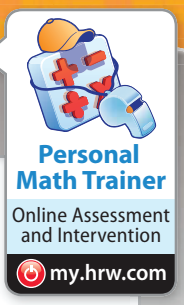
MODULE QUIZ

Ready to Go On?



2.1 Integer Exponents

Find the value of each power.

1. 3^{-4} _____ **2.** 35^{0} _____ **3.** 4^{4} _____

Use the properties of exponents to write an equivalent expression.

4. $8^{3} \cdot 8^{7}$ _____ **5.** $\frac{12^{6}}{12^{2}}$ _____ **6.** $(10^{3})^{5}$ _____

2.2 Scientific Notation with Positive Powers of 10

Convert each number to scientific notation or standard notation.

7. 2,000 _____ **8.** 91,007,500 _____

9. 1.0395×10^{9} _____ **10.** 4×10^{2} _____

2.3 Scientific Notation with Negative Powers of 10

Convert each number to scientific notation or standard notation.

11. 0.02 _____ **12.** 0.000701 _____

13. 8.9×10^{-5} _____ **14.** 4.41×10^{-2} _____

2.4 Operations with Scientific Notation

Perform the operation. Write your answer in scientific notation.

15. $7 \times 10^{6} - 5.3 \times 10^{6}$ _____ **16.** $3.4 \times 10^{4} + 7.1 \times 10^{5}$ _____

17. $(2 \times 10^{4})(5.4 \times 10^{6})$ _____ **18.** $\frac{7.86 \times 10^{9}}{3 \times 10^{4}}$ _____

19. Neptune's average distance from the Sun is 4.503×10^{9} km. Mercury's average distance from the Sun is 5.791×10^{7} km. About how many times farther from the Sun is Neptune than Mercury? Write your answer in scientific notation.

_____

ESSENTIAL QUESTION

20. How is scientific notation used in the real world?

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