Math 8 Unit 1 worksheet: Writing and reading scientific notation

Name _____ Date _____ Period _____

1. Write each number in scientific notation.

(a) 3,090,000 (b) 0.000704 (c) 58,000,000,000 (d) 0.06

(e) 800,100 (f) 0.0000102 (g) 41.7 (h) 0.000000009

2. Write each as an ordinary number.

(a) 5.06×10^{8} (b) 2.3×10^{-7} (c) 4.0005×10^{4}

(d) 1.9×10^{-1} (e) 6.02×10^{-2} (f) 8.88×10^{5}

3. None of these values is in scientific notation. Write the leading number itself in scientific notation, then combine the powers of ten.

(a) 73×10^{-6} (b) 0.48×10^{-3} (c) 0.009×10^{5} (d) 1200×10^{3}

4. Fill in each blank so that the equation is true.

(a) $0.0507 = 5.07 \times 10^{n}$, so $n =$ _____ (b) $3.4 \times 10^{n} = 340{,}000$, so $n =$ _____

(c) $\square \times 10^{-3} = 0.0091$ (d) $62{,}000 = \square \times 10^{4}$

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5. Hannah reads in a news story that the number of trees in a state forest was about 380 thousand. Write this number as an ordinary number and in scientific notation.

6. (a) Write $-72{,}000$ and -0.0038 in scientific notation.

(b) Mateo says the exponent for -0.0038 is negative because the number is negative. Is his reason right? Explain, using both numbers from (a).

7. In a science lab, Yuna's calculator showed three answers, and she copied each one into her notebook. Check each copy. If it is wrong, say what went wrong and write the correct value as an ordinary number.

(a) The screen showed `5.1E4`. Yuna wrote 5.1^4.

(b) The screen showed `3.07E-3`. Yuna wrote 0.000307.

(c) The screen showed `8E12`. Yuna wrote 8,000,000,000,000.

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