Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_\_\_ Number:\_\_\_\_\_\_\_\_\_

**Unit 2.2-2.3 Review—Scientific Notation**

**2.2: I Can write and interpret scientific notation.**

*For problems 1-6, convert the scientific notation to standard form.  
For problems 7-12, convert the standard form to scientific notation.*

|  |  |
| --- | --- |
| 1) | 7) |
| 2) | 8) |
| 3) | 9) |
| 4) | 10) |
| 5) | 11) |
| 6) | 12) |

13) Multiply 328,000 x 234 in your calculator. Then write your answer in scientific notation.

14) Multiply 0.00000134 x 650 in your calculator. Then write the answer in scientific notation.

15) The galaxy Andromeda has a solar weight of 710,000,000,000. Express this number in scientific notation.

16) The approximate weight of a penny is 0.00551 pounds. Express this number in scientific notation.

17) The galaxy Andromeda is km away from Earth. Express this number in standard form.

18) A semi-truck weighs approximately pounds. Express this number in standard form.

19) In scientific notation, what is the difference between positive and negative exponents? How are they different? **Use an example of each in your explanation!**

22) The following numbers represent the population for countries in the world.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| USA | Japan | Indonesia | Canada | Croatia | China | Spain |
| 318,867,000 | 1.27 x 108 | 2.52 x 108 | 35,000,000 | 4.27 x 106 | 1.37 x 109 | 46,507,800 |

(Write the names of the COUNTRIES in order from least to greatest)

Least \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_Greatest

23) Put the following numbers in order from Least to Greatest (write the letters):

A) 0.0034 B) C) D) 0.000053 E)

Least \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ Greatest

**2.3—I Can perform operations on scientific notation.**

*Write all answers in* ***SCIENTIFIC NOTATION****.*

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| --- |
| 1. The mass of the Jupiter is 1.89 x 1027 kg. The mass of the Mercury is 3.28 x 1023 kg. How many times bigger is the mass of Jupiter than the mass of Mercury? |
| 1. A quarter has a mass 5.67 x 10-3 kg and a penny has mass 2.5 x 10-3 kg. How many times bigger is the quarter than the penny? |