

Name: _____ Class: _____ Date: _____

**Scientific Notation in our
"Everyday life"**

- 1) Potato Chippers and Chips Plus produce potato chips. They use the same basic ingredients: potatoes, oil, and salt. Last year, each factory used different amounts of these ingredients, as shown in the table. **Write each answer in scientific notation.**

Ingredients	Potato Chippers Amount used (lb.)	Chips Plus Amount Used (lb.)
Potato	4.87×10^6	3,309,000
Oil	356,000	5.61×10^5
Salt	2.87×10^5	193,500

- a) Which factory used more potatoes last year? How many more potatoes did it use?

- b) Which factory used more oil last year? **How much more** oil did it use than the other factory?

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2) The volume of the Venus is approximately $9.4 \times 10^{11} \text{ km}^3$. The volume of Mars is approximately 1.6×10^{11} .

a) About *how many times* as great as the volume of Mars is the volume of Venus? *Round to the nearest tenth.*

b) The volume of Earth is approximately 0.69×10^{11} *times larger* than the volume of Mars. What is the approximate volume of Earth?

c) What is the *difference* in volume, in cubic kilometers, between the volume of the Earth and the volume of Venus?

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3) Write each population in scientific notation.



The population of California is approximately 38,040,000.

The population of Texas is approximately 26.06×10^6 .



The population of New York State is approximately 1.96×10^7 .



California

Texas

New York

Which state has the greater population? Justify your reasoning.

How much more is the population of California to New York?

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Subtract using Scientific Notation: To find the difference, we subtract:

- 4) The population of New York State is approximately 1.96×10^7 population of New York City alone is 8,245,000. How many people do not live in New York City?



- To find the number of people that live in New York State but not in New York City, we must _____ the population of _____ from the population of _____

Show your work!

- 5) The approximate thickness of an iPhone 4s is 9.398×10^{-1} centimeters. The approximate thickness of a standard deck of 52 cards is 1.515×10^0 . Which is thicker? Justify your answer.



What is the difference between the thickness of an iPhone 4s and a standard deck of 52 cards?
