

Homework #4

Scientific Notation

Name: _____

Class Period: _____

Date: _____

Methods and vocabulary reminders:

Writing numbers into scientific notation form

- Place a decimal point to create a number between 1 and 10.
- The power of ten will be the amount of places you moved.
Positive exponents will move the decimal to the left. Negative to the right.
- Write the final answer as a product of steps 1 and 2.

Put a scientific notation number back into standard form.

- Use the power of 10 to move the decimal place to the right or left.
- Positive exponents will move the decimal to the left. Negative to the right.

Homework Feedback

You understand this. 😊:

Correct a few questions. 😐:

Repair. **Resubmit** for credit. 😞:

Extra Help might be needed. 😟:

1. I. Put the following numbers written in standard form into scientific notation.

a. 0.000005

b. 80

c. 4500000

d. 0.009

e. 200000000

f. 78900

g. 0.01

h. 1000000000

i. 0.00443

j. 0.256

k. 5553

l. 3

II. Change the following numbers into their correct scientific notation form.

m. 71×10^3

n. 33×10^{-3}

o. 0.63×10^1

p. 0.15×10^{-2}

2. Put the following facts into standard form and gain an understanding its practical value.

Fact	Scientific Form	Standard Form
The population of the Earth.	7.125×10^9	
The speed of light in miles per second.	1.86282×10^5	
The thickness of a strand of silk in millimeters.	1×10^{-3}	
The weight of a blade of grass in kilograms.	6.543×10^{-8}	
The weight of an M&M in kilograms.	6.777×10^{-6}	
The distance from Earth to Mars in kilometers.	5.6×10^7	
The distance from Earth to the Sun in miles.	9.3×10^7	
About the number of people on Facebook.	5×10^8	
The weight of the Earth in tons.	6.58×10^{24}	

3. Look up each of the following facts. First write the number in **standard form**.

Second, write the number in **scientific notation**.

1. How old is the earth in **years**? _____

2. How far is it from Earth to the Sun in **miles**? _____

3. How thick is a blade of grass in **inches**? _____

4. How many people are in the United States? _____

5. How many people are on planet Earth? _____

6. What is the diameter of a grain of sand in **inches**? _____

7. What is the speed of light in **miles per hour**? _____

8. The average thickness of 1 strand of human hair in **inches**. _____

9. How tall is Mount Everest in **feet**. _____

10. The # of subscribers of You Tubes most popular channel. (2019) _____

11. Total number of cats in the United States. _____

12. Total number of dogs in the United States. _____

13. The average height of a commercial plane during travel in **feet**. _____

14. Our current national debt in **dollars**. _____

15. The value of the New York Yankees franchise in **dollars**. _____

16. The population of China. _____

17. The number of baseballs used in an entire MLB season. _____

18. The total amount of individual M&M candies made **per day**. _____

19. Amount of plastic water bottles made **per minute**. _____

20. The calculation speed of a supercomputer in **seconds**. _____