

Success Practice – Scientific Notation

Learning Target: I can convert a number from scientific notation into standard notation.

Study the following 8 numbers in the table below. Discuss the questions with your partner.

- Which numbers are in scientific notation? List the letters below.
- Which numbers are NOT in scientific notation? List the letters below.
- Justify why the numbers are or are not in scientific notation format.

A 345	B 5.62×10^5	C 28.17×10^2	D 8.2×10^{-3}
E 62.109	F 3.901×10^8	G 0.0382	H 0.69×10^5

IN scientific notation form:

NOT in scientific notation form:

Justification for numbers in scientific notation:

Justification for numbers NOT in scientific notation:

Express each number in standard notation

1.) $3.1 \times 10^{-1} =$

2.) $8.07 \times 10^{-2} =$

3.) $4.501 \times 10^4 =$

4.) $9.7 \times 10^{-6} =$

5.) $2.86 \times 10^5 =$

6.) $3.58 \times 10^6 =$

7.) $8.1 \times 10^0 =$

8.) $5.94 \times 10^{-7} =$

9.) $2.104 \times 10^8 =$

10.) $1.2 \times 10^{-5} =$

11.) The most venomous scorpion gives 9×10^{-6} oz of venom in a bite. How is this expressed in standard notation? Answer in a complete sentence.

12.) Molly and Jeffery both expressed 193,000 in scientific notation. Molly said the number is 1.93×10^5 and Jeffery said the number is 19.3×10^4 . Who is correct? Justify your answer in a complete sentence.

Write the numbers in order from least to greatest.

13.) 3.58×10^6 , 9.7×10^5 , 1.364×10^4 , 3.58×10^{-6}

14.) 7.802×10^2 , 5.2304×10^{-5} , 6.024×10^7 , 9.054×10^{-8}