

Grade 8 - Scientific Notation - Test

Common Core 8.EE.A.3, 8.EE.A.4 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

This 20-point test checks scientific notation, comparing sizes and calculating with very large and very small numbers (Common Core 8.EE.A.3 and 8.EE.A.4). Work alone, show every step, and write each final answer clearly. You have 45 minutes. Calculators are not needed unless a question says so.

About this test

- Grade: Grade 8
- Chapter: Scientific Notation
- Standards: 8.EE.A.3, 8.EE.A.4
- Time: 45 minutes
- Total: 20 points

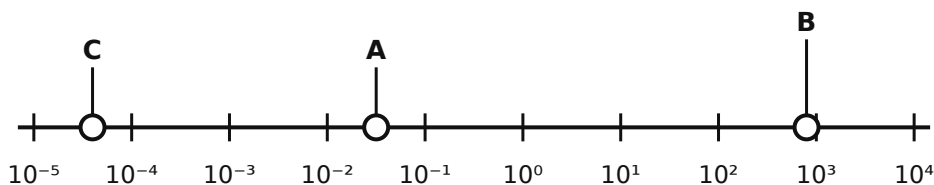
Question 1 - Write in scientific notation [2 pts]

- Write 58,000,000 in scientific notation. (1 point)
- Write 0.0000047 in scientific notation. (1 point)

Question 2 - Write in standard form [2 pts]

- Write 3.06×10^4 in standard form. (1 point)
- Write 8×10^{-5} in standard form. (1 point)

Question 3 - Compare sizes [2 pts]



Points A, B and C mark three numbers.

Order 4×10^{-5} , 8×10^2 and 3×10^{-2} from least to greatest.

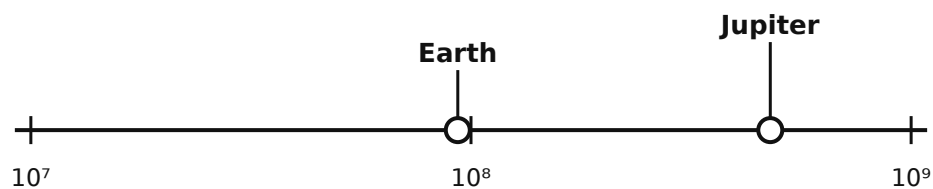
Question 4 - Multiply and divide [3 pts]

- a. Compute $(6 \times 10^3)(4 \times 10^5)$. (2 points)
- b. Compute $\frac{9 \times 10^7}{3 \times 10^3}$. (1 point)

Question 5 - Add [2 pts]

Compute $2.4 \times 10^5 + 3.1 \times 10^4$ and write the answer in scientific notation.

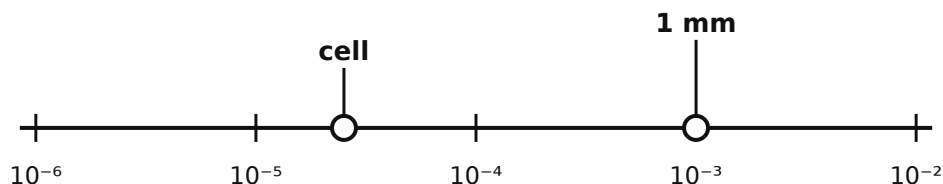
Question 6 - Sun and Jupiter [3 pts]



Distances from the Sun in miles.

Earth is 9.3×10^7 miles from the Sun and Jupiter is 4.8×10^8 miles from the Sun. How many miles farther from the Sun is Jupiter than Earth? Write the answer in scientific notation.

Question 7 - Cells across a millimeter [3 pts]



A skin cell is 2.5×10^{-5} m wide.

A skin cell is about 2.5×10^{-5} meter wide. How many skin cells fit across 1 millimeter, which is 10^{-3} meter?

Question 8 - Explain [3 pts]

Noah says 0.5×10^6 is in scientific notation. Is he correct? Rewrite the number correctly and

write it in standard form.