Scientific notation and decimal conversion

6 questions | 13 marks

Equivalent correct methods earn the corresponding marks.

1. Write 56000 in scientific notation. [2 marks]

$56000 = 5.6 \times 10000 = 5.6 \times 10^4$.

Answer: 5.6×10^4

2. Write 0.0031 in scientific notation. [2 marks]

$3.1 \div 1000 = 0.0031$.

Answer: 3.1×10^{-3}

3. Write 2.07×10^5 as an ordinary number. [2 marks]

$2.07 \times 100000 = 207000$.

Answer: 207000

4. Write 9×10^{-6} as an ordinary decimal. [2 marks]

$9 \div 1000000 = 0.000009$.

Answer: 0.000009

5. Rewrite 47×10^3 in standard scientific notation. [2 marks]

Change 47 to 4.7, dividing the coefficient by 10.

Increase the power by 1 to preserve the value.

Answer: 4.7×10^4

6. A student writes $0.00072 = 7.2 \times 10^4$. Explain and correct the error. [3 marks]

The original number is below 1, so the power must be negative.

$7.2 \div 10000 = 0.00072$.

Answer: 7.2×10^{-4}