

Scientific Notation - Standard

Example: 1

Write 3.25×10^2 in standard notation.

Here the exponent is 2. We should move the decimal point 2 places to the right.

$$\begin{array}{c} 3 \quad 2 \quad 5 \\ \downarrow \quad \downarrow \\ 325 \end{array}$$

$$3.25 \times 10^2 = \mathbf{325}$$

Example: 2

Write 8.76×10^{-2} in standard notation.

Here the exponent is -2. We should move the decimal point 2 places to the left.

$$\begin{array}{c} 0 \quad 0 \quad 8 \quad 7 \quad 6 \\ \downarrow \quad \downarrow \\ 0.0876 \end{array}$$

$$8.76 \times 10^{-2} = \mathbf{0.0876}$$

Move the decimal forward or backward the number of places equal to the exponent. Express each number in standard notation.

For your answers use this format: 99,999 or 999 or 999.9 if there is a number after the decimal.

For numbers with a decimal use the leading zero 0.9999

- | | |
|------------------------------------|-------------------------------------|
| 1) $9.63 \times 10^{-3} =$ _____ | 2) $5.1146 \times 10^3 =$ _____ |
| 3) $3.042 \times 10^2 =$ _____ | 4) $7.259 \times 10^4 =$ _____ |
| 5) $9.105 \times 10^{-2} =$ _____ | 6) $6.5 \times 10^{-5} =$ _____ |
| 7) $6.1 \times 10^4 =$ _____ | 8) $9.8 \times 10^{-1} =$ _____ |
| 9) $2.9854 \times 10^{-1} =$ _____ | 10) $8.432 \times 10^4 =$ _____ |
| 11) $1.05 \times 10^2 =$ _____ | 12) $2.8502 \times 10^{-3} =$ _____ |
| 13) $4.172 \times 10^{-4} =$ _____ | 14) $9.7 \times 10^5 =$ _____ |