

SIGNIFICANT FIGURES & STANARD FORM



Name Form

Significant Figures

You need to be able to quote answers to the correct number of significant figures.

1) Write the following numbers to the quoted number of significant figures.

- | | | | | | |
|------------|------------|-------|-------------|------------|-------|
| a) 345789 | 4 sig figs | ..... | d) 6 | 3 sig figs | ..... |
| b) 297300 | 3 sig figs | ..... | e) 0.001563 | 3 sig figs | ..... |
| c) 0.07896 | 3 sig figs | ..... | f) 0.01 | 4 sig figs | ..... |

2) Complete the following sums and give the answers to 3 significant figures.

- | | | | |
|------------------------|-------|--------------------------|-------|
| a) 6125×384 | ..... | d) $750 \div 25$ | ..... |
| b) 25.00×0.01 | ..... | e) 0.000152×13 | ..... |
| c) $13.5 + 0.18$ | ..... | f) 0.0125×0.025 | ..... |

Standard Form

You need to be able to work with numbers in standard form.

3) Write the following numbers in non standard form.

- | | | | |
|---------------------------|-------|--------------------------|-------|
| a) 1.5×10^{-3} | ..... | d) 0.0534×10^4 | ..... |
| b) 0.046×10^{-2} | ..... | e) 10.3×10^5 | ..... |
| c) 3.575×10^5 | ..... | f) 8.35×10^{-3} | ..... |

4) Write the following numbers in standard form.

- | | | | |
|----------------|-------|-------------|-------|
| a) 0.000167 | ..... | d) 34500 | ..... |
| b) 0.0524 | ..... | e) 0.62 | ..... |
| c) 0.000000015 | ..... | f) 87000000 | ..... |

5) Complete the following calculations and give the answers to 3 significant figures.

- | | |
|--|-------|
| a) $6.125 \times 10^{-3} \times 3.5$ | ..... |
| b) $4.3 \times 10^{-4} \div 7.0$ | ..... |
| c) $4.0 \times 10^8 + 35000$ | ..... |
| d) $0.00156 + 2.4 \times 10^3$ | ..... |
| e) $6.10 \times 10^{-2} - 3.4 \times 10^{-5}$ | ..... |
| f) $8.00 \times 10^{-3} \times 0.100 \times 10^{-3}$ | ..... |