

Significant Figures Worksheet

Significant Figures

1. Indicate how many significant figures there are in each of the following measured values.

246.32	_____	1.008	_____	700000	_____
107.854	_____	0.00340	_____	350.670	_____
100.3	_____	14.600	_____	1.0000	_____
0.678	_____	0.0001	_____	320001	_____

2. Calculate the answers to the appropriate number of significant figures.

$$\begin{array}{r} 32.567 \\ 135.0 \\ + 1.4567 \\ \hline \end{array}$$

$$\begin{array}{r} 246.24 \\ .238.278 \\ + 98.3 \\ \hline \end{array}$$

$$\begin{array}{r} 658.0 \\ 23.5478 \\ + 1345.29 \\ \hline \end{array}$$

3. Calculate the answers to the appropriate number of significant figures.

a) $23.7 \times 3.8 =$ _____

f) $1.678 / 0.42 =$ _____

b) $45.76 \times 0.25 =$ _____

g) $28.367 / 3.74 =$ _____

c) $81.04 \text{ g} \times 0.010 =$ _____

h) $4278 / 1.006 =$ _____

d) $6.47 \times 64.5 =$ _____

i) $(6.8 + 4.7) \times 17.44 =$ _____

e) $43.678 \times 64.1 =$ _____

j) $(320. - 22.7) \times 3.8 =$ _____

k) $\frac{(14.86 + 13.7) \times (65.346 - 4.10)}{(43.888 - 32.888)} =$ _____

Scientific Notation

Write each number in scientific notation.

1) 0.000000786

2) 3940

3) 4.7

4) 1260000

5) 0.06

6) 175

Write each number in standard notation.

7) 6.17×10^3

8) 7×10^4

9) 7.31×10^6

10) 5.4×10^{-8}

11) 6.7×10^{-3}

12) 9.59×10^2

Write each number in scientific notation.

13) 0.2×10^6

14) 30×10^{-8}

15) 88.4×10^3

16) 28.8×10^{-9}

Simplify. Write each answer in scientific notation.

17) $(5.4 \times 10^{-1})(7 \times 10^0)$

18) $(5 \times 10^3)(3.5 \times 10^{-1})$

19) $(6 \times 10^6)(4 \times 10^{-1})$

20) $(4.11 \times 10^5)(8.65 \times 10^{-5})$

21) $(7.68 \times 10^2)(9 \times 10^6)$

22) $(8.31 \times 10^{-3})(6.6 \times 10^{-6})$