

## Significant Figures Worksheet

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)  $23.7 \times 3.8 =$  \_\_\_\_\_ e)  $43.678 \times 64.1 =$  \_\_\_\_\_

b)  $45.76 \times 0.25 =$  \_\_\_\_\_ f)  $1.678 / 0.42 =$  \_\_\_\_\_

c)  $81.04 \text{ g} \times 0.010 =$  \_\_\_\_\_ g)  $28.367 / 3.74 =$  \_\_\_\_\_

d)  $6.47 \times 64.5 =$  \_\_\_\_\_ h)  $4278 / 1.006 =$  \_\_\_\_\_

## Significant Figures Worksheet Key

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

246.32	<u>5 sig figs</u>	1.008	<u>4 sig figs</u>	700000	<u>1 sig fig</u>
107.854	<u>6 sig figs</u>	0.00340	<u>3 sig figs</u>	350.670	<u>6 sig figs</u>
100.3	<u>4 sig figs</u>	14.600	<u>5 sig figs</u>	1.0000	<u>5 sig figs</u>
0.678	<u>3 sig figs</u>	0.0001	<u>1 sig fig</u>	320001	<u>6 sig figs</u>

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

$$\begin{array}{r} 32.567 \\ 135.0 \\ + 1.4567 \\ \hline \mathbf{169.0} \end{array}$$

$$\begin{array}{r} 246.24 \\ 238.278 \\ + 98.3 \\ \hline \mathbf{582.8} \end{array}$$

$$\begin{array}{r} 658.0 \\ 23.5478 \\ + 1345.29 \\ \hline \mathbf{2026.8} \end{array}$$

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

- |                                   |                                     |                         |   |
|-----------------------------------|-------------------------------------|-------------------------|---|
| a) $23.7 \times 3.8$              | = <u><math>\mathbf{90.}</math></u>  | e) $43.678 \times 64.1$ | = <u><math>\mathbf{2.80 \times 10^3}</math></u> |
| b) $45.76 \times 0.25$            | = <u><math>\mathbf{11}</math></u>   | f) $1.678 / 0.42$       | = <u><math>\mathbf{4.0}</math></u>              |
| c) $81.04 \text{ g} \times 0.010$ | = <u><math>\mathbf{0.81}</math></u> | g) $28.367 / 3.74$      | = <u><math>\mathbf{7.58}</math></u>             |
| d) $6.47 \times 64.5$             | = <u><math>\mathbf{417}</math></u>  | h) $4278 / 1.006$       | = <u><math>\mathbf{4252}</math></u>             |