

## 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    5 sig figs                      1.008    4 sig figs                      700000    1 sig fig

107.854    6 sig figs                      0.00340    3 sig figs                      350.670    6 sig figs

100.3    4 sig figs                      14.600    5 sig figs                      1.0000    5 sig figs

0.678    3 sig figs                      0.0001    1 sig fig                      320001    6 sig figs

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)  $23.7 \times 3.8 = \mathbf{90.}$                       e)  $43.678 \times 64.1 = \mathbf{2.8 \times 10^3}$

b)  $45.76 \times 0.25 = \mathbf{11}$                       f)  $1.678 / 0.42 = \mathbf{4.0}$

c)  $81.04 \text{ g} \times 0.010 = \mathbf{0.81}$                       g)  $28.367 / 3.74 = \mathbf{7.58}$

d)  $6.47 \times 64.5 = \mathbf{417}$                       h)  $4278 / 1.006 = \mathbf{4252}$