

## 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.

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

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

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

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

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