

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.

$$\begin{array}{r} 32.567 \\ 135.0 \\ + 1.4567 \\ \hline 169.0 \end{array} \quad \begin{array}{r} 246.24 \\ 238.278 \\ + 98.3 \\ \hline 582.8 \end{array} \quad \begin{array}{r} 658.0 \\ 23.5478 \\ + 1345.29 \\ \hline 2026.8 \end{array}$$

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

a) $23.7 \times 3.8 = \underline{\text{90.}}$ e) $43.678 \times 64.1 = \underline{\text{2.80} \times 10^3}$

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

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

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