

Significant Figures #1

1. Significant figures include all _____ or _____ digits plus one _____ digit.

2. Rules for determining significant figures:

- Non-_____ numbers are _____ significant.
- _____ zeros are between non-zero numbers and are _____ significant.
- _____ zeros are final zeros. Significance is determined by the absence or present of the _____.
 - With a decimal point: _____ significant
 - Without a decimal point: _____ significant
- _____ zeros act as placeholders and are removed when the number is converted to scientific notation. These zeros are _____ significant.
- Infinite numbers of significant figures are found in _____ numbers and defined _____.

3. Determine the number of significant figures in the following.

- | | | | |
|-----------------------|-------|----------|-------|
| • 6.6 | _____ | • 0.0922 | _____ |
| • 7.475×10^4 | _____ | • 31 | _____ |
| • 80 | _____ | • 5052 | _____ |
| • 6.300×10^6 | _____ | • 0.7401 | _____ |
| • 5×10^{-5} | _____ | • 300 | _____ |

4. Calculated answers cannot be more precise than the measuring tools used to make the original measurements. Calculated answers must match the _____ precise measurements.

- When adding and subtracting, the calculated answer has the same number of _____ as the measurement with the _____ decimal places.
- When multiplying and dividing, the answer has the same number of _____ as the measurement with the _____ significant figures.