

EVALUATING ZERO IN SIGNIFICANT FIGURES

In any measurement ALL NONZERO NUMBERS ARE SIGNIFICANT. However, zeros may or may not be significant depending on their position in the number. Here are some rules for determining when zero is significant.

1. **CONFINED ZEROS** - **Count**

Zeros between nonzero digits ARE significant:

205 has *THREE* significant figures

2.05 has *THREE* significant figures

61.09 has *FOUR* significant figures

2. **LEADING ZEROS** - **Do NOT Count**

Zeros that precede the first nonzero digit ARE NOT significant.

These zeros are used to locate a decimal point:

0.0025 has *TWO* significant figures (2, 5)

0.0108 has *THREE* significant figures (1, 0, 8)

3. **TRAILING ZEROS WITH A DECIMAL** - **Count**

Zeros at the end of a number that include a decimal point ARE significant:

0.500 has *THREE* significant figures (5, 0, 0)

25.160 has *FIVE* significant figures

3.00 has *THREE* significant figures

20. has *TWO* significant figures

4. **TRAILING ZEROS WITHOUT A DECIMAL** - **Do NOT Count**

Zeros at the end of a number without a decimal point ARE NOT significant:

1000 has *ONE* significant figure

590 has *TWO* significant figures