

### **Answer on Question #43989-Physics-Mechanics-Kinematics-Dynamics**

Please mention me the rules of determining significant figures.

#### **Answer**

The rules for significant figures:

- 1) ALL non-zero numbers (1,2,3,4,5,6,7,8,9) are ALWAYS significant.
- 2) ALL zeroes between non-zero numbers are ALWAYS significant.
- 3) ALL zeroes which are SIMULTANEOUSLY to the right of the decimal point AND at the end of the number are ALWAYS significant.
- 4) ALL zeroes which are to the left of a written decimal point and are in a number  $\geq 10$  are ALWAYS significant.

Addition and subtraction:

When adding or subtracting numbers, count the NUMBER OF DECIMAL PLACES to determine the number of significant figures. The answer cannot CONTAIN MORE PLACES AFTER THE DECIMAL POINT THAN THE SMALLEST NUMBER OF DECIMAL PLACES in the numbers being added or subtracted.

Multiplication and division:

When multiplying or dividing numbers, count the NUMBER OF SIGNIFICANT FIGURES. The answer cannot CONTAIN MORE SIGNIFICANT FIGURES THAN THE NUMBER BEING MULTIPLIED OR DIVIDED with the LEAST NUMBER OF SIGNIFICANT FIGURES.