

Trailing zeros: Zeros appearing at right of a non-zero digit after which no other non-zero digit follows.

2300 → 2 SF.

1.000 → 4 SF.

1.230 → 4 SF

5. **Exact numbers** have infinite number of significant figures.

Eg: Number of students in a class.

Number of members in a family.

6. In scientific notation, $N \times 10^x$,

N is significant by above rules.

10 and x are not significant.

Addition and subtraction using significant rules:

1. Count the number of significant figures in the decimal portion ONLY of each number in the problem.

2. Add or subtract in the normal fashion.

3. Your final answer may have no more significant figures **to the right of the decimal** than the LEAST number of significant figures in any number in the problem.

The result should have least number of decimal digits (among numbers).

(You are now looking just the decimal portion)

Example:

24.67	
+11.456	
38.426	
The final answer is: 38.4	<p style="margin: 0;">2.3 → having least significant figures in decimal portion.</p> <p style="margin: 0;">Your final answer should have only one SF in decimal portion.</p>

Multiplication and division using significant rules:

1. Count the number of significant figures in the number in the problem.

2. Multiply or divide in the normal fashion.

3. Your final answer should have least number of significant figures (among all numbers).

The LEAST number of significant figures in any number of the problem determines the number of significant figures in the answer.

(You are now looking at the entire number, not just the decimal portion).

02.67	
3.203	
× 5.0	
42.76005	
The final answer is: 43	<p style="margin: 0;">least number of SF- in entire number.</p> <p style="margin: 0;">Your final answer should have two SF in entire number.</p>

02.67	
3.203	
× 5	
42.76005	
The final answer is: 40	<p style="margin: 0;">The final answer should have one SF in entire number.</p>

The final answer is: 40

4×10^1 .