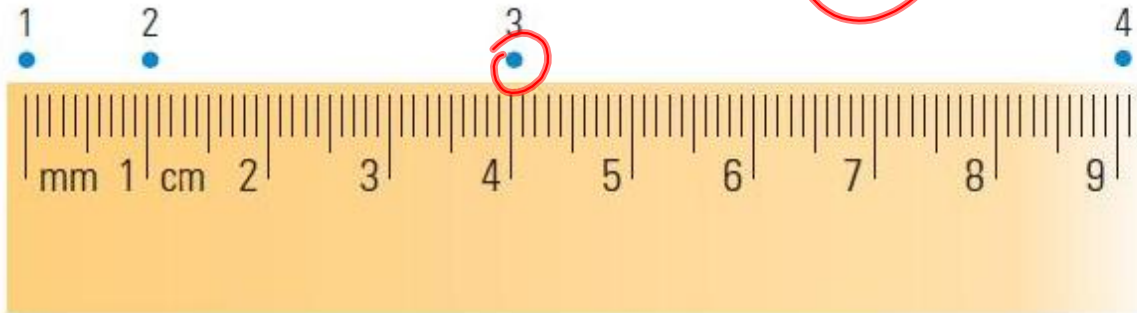


Significant Digits

- Count all 'certain plus one' digits.

Example:



4.5

Certainty of Measurements

Measurement	Certainty
307.0 cm	4 significant digits
61 m/s	2 significant digits
0.03 m	1 significant digit
0.5060 km	4 significant digits
3.00×10^8 m/s	3 significant digits

Leading zeros
don't count

Defined and Counted Values
contain an 'infinite' number of
significant digits.

Exact Values

Counted values	Defined values
4 dogs	1000 m/km
10 CDs	10 mm/cm
3 Blue Jays	1 h/60 min

Certainty in Calculations with Multiplying and Dividing

$$\frac{22.7 \text{ km}}{7.2 \text{ h}}$$

$$3.14$$

$$3.13969 \text{ km/h}$$

When multiplying or dividing, the answer cannot have more significant digits than any number in the question.

Precision in Calculations with Adding and Subtracting

When adding or subtracting, the answer has the same # of decimal places as the "least" in any part of the question.

$$36.42 + 5424.3$$

$$5460.72$$

$$5460.7$$