

CONCEPT: COUNTING SIGNIFICANT FIGURES (SIG FIGS)

- In Physics, measurements have **PRECISION**, indicated by the # of digits:

10 kg
[LESS | MORE] precision

10.27 kg
[LESS | MORE] precision

- Not **all** digits in measurements matter. Significant Figures are the # of digits that _____.

15 kg
digits given: _____
digits that matter: _____

015 kg
digits given: _____
digits that matter: _____

EXAMPLE: Determine the number of significant figures in the number below:

0 . 0 1 3 2 0 0 9 7 2 0 0 0									
└───┘		└───┘		└───┘					
_____ 0s		_____ 0s		_____ 0s					
# of Significant Figures: _____									

STEPS
1) Eliminate Leading 0's
2) If # has no decimal, eliminate Trailing 0's
3) Count remaining digits - <u>Never</u> eliminate non-zeroes or Middle 0's

EXAMPLE: How many significant figures are there in each of the following numbers?

a) 100.00

b) 0.0043

c) 31000092

d) 100

e) 73917000

f) 0.00900

PRACTICE: How many significant figures are in each of the following numbers?

a) 0.0032

b) 10790

c) 08.02