

DATA ACQUISITION (NUMBERS)

SCIENTIFIC NOTATION

Standard Number	SN

POWERS OF TEN

Prefix	Abbr.	Power	Example

STANDARD SCIENTIFIC NOTATION

Standard Number	SSN

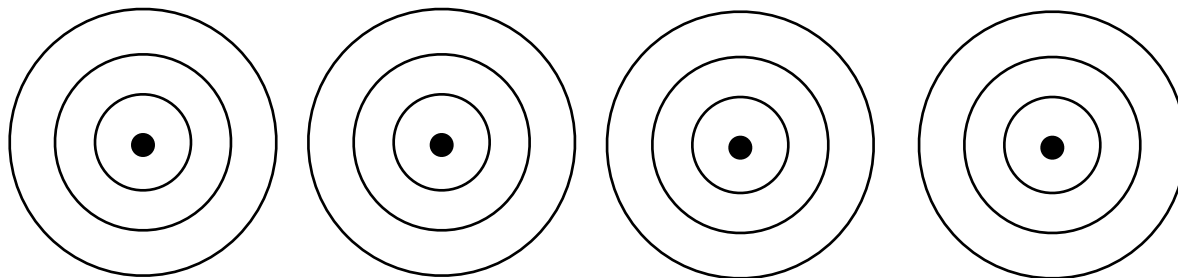
SIGNIFICANT DIGITS

example	SD's

PRECISION AND ACCURACY

Precision _____

Accuracy _____



Physics _____
 Period _____

Name _____
 Date _____

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SCIENTIFIC NOTATION

Standard Number	SN

STANDARD SCIENTIFIC NOTATION

Standard Number	SSN

SIGNIFICANT DIGITS

example	SD's

POWERS OF TEN

TABLE 1.5 Selected Prefixes Used in the Metric System

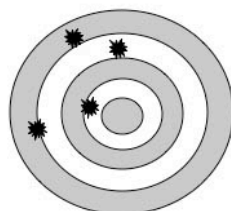
Prefix	Abbreviation	Meaning	Example
Giga	G	10^9	1 gigameter (Gm) = 1×10^9 m
Mega	M	10^6	1 megameter (Mm) = 1×10^6 m
Kilo	k	10^3	1 kilometer (km) = 1×10^3 m
Deci	d	10^{-1}	1 decimeter (dm) = 0.1 m
Centi	c	10^{-2}	1 centimeter (cm) = 0.01 m
Milli	m	10^{-3}	1 millimeter (mm) = 0.001 m
Micro	μ^a	10^{-6}	1 micrometer (μ m) = 1×10^{-6} m
Nano	n	10^{-9}	1 nanometer (nm) = 1×10^{-9} m
Pico	p	10^{-12}	1 picometer (pm) = 1×10^{-12} m
Femto	f	10^{-15}	1 femtometer (fm) = 1×10^{-15} m

^aThis is the Greek letter mu (pronounced "mew").

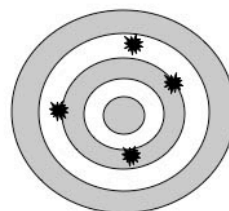
PRECISION AND ACCURACY

Precision _____

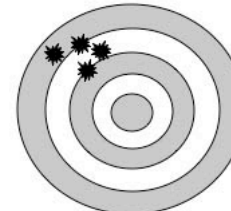
Accuracy _____



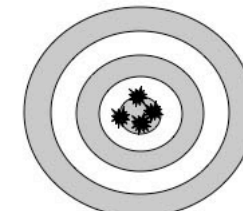
Not Accurate
Not Precise



Accurate
Not Precise



Not Accurate
Precise



Accurate
Precise

Physics

Period _____

Name _____

Date _____

POWERS OF TEN

Standard form	Basic numeral	Name	SI prefix	SI symbol
1.0×10^{24}	1 000 000 000 000 000 000 000 000	Septillion	yotta	Y
1.0×10^{21}	1 000 000 000 000 000 000 000	Sextillion	zetta	Z
1.0×10^{18}	1 000 000 000 000 000 000	Quintillion	exa	E
1.0×10^{15}	1 000 000 000 000 000	Quadrillion	peta	P
1.0×10^{12}	1 000 000 000 000	Trillion	tera	T
1.0×10^9	1 000 000 000	Billion	giga	G
1.0×10^6	1 000 000	Million	mega	M
1.0×10^3	1 000	Thousand	kilo	k
1.0×10^2	100	Hundred	hecto	h
1.0×10^1	10	Ten	deca	da
1.0×10^{-1}	0.1	Tenth	deci	d
1.0×10^{-2}	0.01	Hundredth	centi	c
1.0×10^{-3}	0.001	Thousandth	milli	m
1.0×10^{-6}	0.000 001	Millionth	micro	μ
1.0×10^{-9}	0.000 000 001	Billionth	nano	n
1.0×10^{-12}	0.000 000 000 001	Trillionth	pico	p
1.0×10^{-15}	0.000 000 000 000 001	Quadrillionth	femto	f
1.0×10^{-18}	0.000 000 000 000 000 001	Quintillionth	atto	a
1.0×10^{-21}	0.000 000 000 000 000 000 001	Sextillionth	zepto	z
1.0×10^{-24}	0.000 000 000 000 000 000 000 001	Septillionth	yocto	y

Note: SI stands for International System of units.

DATA ACQUISITION (SI UNITS)