

Section

1-2

HOLT PHYSICS

Math Skills

Measurements in Experiments

Power	Prefix	Abbreviation
10^{-18}	atto-	a
10^{-15}	femto-	f
10^{-12}	pico-	p
10^{-9}	nano-	n
10^{-6}	micro-	μ
10^{-3}	milli-	m
10^{-2}	centi-	c

Power	Prefix	Abbreviation
10^{-1}	deci-	d
10^1	deka-	da
10^3	kilo-	k
10^6	mega-	M
10^9	giga-	G
10^{12}	tera-	T
10^{15}	peta-	P
10^{18}	exa-	E

- How many picoseconds are there in 1 Ms? _____
- How many micrograms make 1 kg? _____
- How many nanometers are there in 1 cm? _____
- Rewrite the following quantities in scientific notation without prefixes.
 - 3582 gigabytes _____
 - 0.0009231 milliwatts _____
 - 53657 nanoseconds _____
 - 5.32 milligrams _____
 - 88900 megahertz _____
 - 0.00000083 centimeters _____
- Rewrite the following quantities in units with SI prefixes.
 - 36582472 g _____
 - 0.000000452 m _____
 - 53236 V _____
 - 4.62×10^{-3} s _____
- Express the measurement 4.29478416 kg with 8, 6, 4, and 2 significant figures.

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