

metric conversions

TABLE 1.5 • Prefixes Used in the Metric System and with SI Units

Prefix	Abbreviation	Meaning	Example
Peta	P	10^{15}	1 petawatt (PW) = 1×10^{15} watts ^a
Tera	T	10^{12}	1 terawatt (TW) = 1×10^{12} watts
Giga	G	10^9	1 gigawatt (GW) = 1×10^9 watts
Mega	M	10^6	1 megawatt (MW) = 1×10^6 watts
Kilo	k	10^3	1 kilowatt (kW) = 1×10^3 watts
Deci	d	10^{-1}	1 deciwatt (dW) = 1×10^{-1} watt
Centi	c	10^{-2}	1 centiwatt (cW) = 1×10^{-2} watt
Milli	m	10^{-3}	1 milliwatt (mW) = 1×10^{-3} watt
Micro	μ^b	10^{-6}	1 microwatt (μ W) = 1×10^{-6} watt
Nano	n	10^{-9}	1 nanowatt (nW) = 1×10^{-9} watt
Pico	p	10^{-12}	1 picowatt (pW) = 1×10^{-12} watt
Femto	f	10^{-15}	1 femtowatt (fW) = 1×10^{-15} watt
Atto	a	10^{-18}	1 attowatt (aW) = 1×10^{-18} watt
Zepto	z	10^{-21}	1 zeptowatt (zW) = 1×10^{-21} watt

^aThe watt (W) is the SI unit of power, which is the rate at which energy is either generated or consumed. The SI unit of energy is the joule (J); $1 \text{ J} = 1 \text{ kg} \cdot \text{m}^2/\text{s}^2$ and $1 \text{ W} = 1 \text{ J/s}$.

^bGreek letter mu, pronounced "mew."

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$$\text{Prefix} \times \frac{10^? \text{ Base unit (gLmW)}}{\text{Prefix}} = \text{Answer}$$

$$\text{Base unit} \times \frac{\text{Prefix}}{10^? \text{ Base unit (gLmW)}} = \text{Answer}$$

Please
Tell
George

Monkeys
Kick

Do not
Catch
Monkeys

Unless
No one
Prays

F
A
Z