

Tech exam cheat sheet

Conversion of electrical units

There are 11 possible questions that require conversion between units.
To solve these questions, learn this table of prefixes and decimal shift numbers.
Warning: Don't try to do these "in your head"! Use paper and pencil

{Pico}	-12
{Micro}	-6
{Milli}	-3
{none}	0
{Kilo}	3
{Mega}	6
{Giga}	9

Example: **T5B01- How many milliamperes is 1.5 amperes**

Convert To From

Identify "From what To what" and note prefixes	From {none}Amps to {Milli} Amps
Write the "From" number and add zeros on both ends	0000001.500000 Amps
Translate the prefixes to numbers	"From" Prefix: {none} → 0 "To" Prefix: {Milli} → -3
Use the equation Decimal shift = "To" – "From"	Decimal shift = (-3) – (0) = -3
If negative shift right. Positive shift left	15.0000 1 st shift 150.000 2 nd shift 1500.00 3 rd shift Answer: 1500.000 milli amperes

Example: **T5B04 – How many volts are equal to one microvolt?**

Identify "From what To what" and note prefixes	From {micro}Volt to {none} Volts
Write the "From" number and add zeros on both ends	000001.000000 micro volts
Translate the prefixes to numbers	"From" Prefix: {micro} → -6 "To" Prefix: {none} → 0
Use the equation Decimal shift = "To" – "From"	Decimal shift = (0) – (-6) = + 6
If negative shift right. Positive shift left	00.1000000 1 st shift 00.0100000 2 nd shift 00.0010000 3 rd shift ... Answer: 00.000001 volts One one-millionth of a volt