



Common SI Unit Prefixes for Chemistry

Prefix Equivalence to Base Unit (mass used only as an example)

Prefix	Conversion to Prefix Unit	Conversion to Base Unit	Ways I Remember*
Giga-	1 Gg = 10^9 g	10^{-9} Gg = 1 g	USB flash drive
Mega-	1 Mg = 10^6 g	10^{-6} Mg = 1 g	"Mega Millions" lottery
Kilo-	1 kg = 10^3 g	10^{-3} kg = 1 g	(10K race ~ 6.2 miles)
(base)	grams (g)	--	--
deci-	1 dg = 10^{-1} g	10 dg = 1 g	decimal = 0.1
centi-	1 cg = 10^{-2} g	10^2 cg = 1 g	100 cents = 1 dollar
milli-	1 mg = 10^{-3} g	10^3 mg = 1 g	(10 mils = 1 cent during civil war; also used for Winchester, CT toll for covered bridge)
micro-	1 μ g = 10^{-6} g	10^6 μ g = 1 g	What's one-millionth of a mouth wash?
nano-	1 ng = 10^{-9} g	10^9 ng = 1 g	nano- and 10^{-9} both start with 'n'; nanotechnology is very small (thus 10^{-9})
pico-	1 pg = 10^{-12} g	10^{12} pg = 1 g	(I just memorized it; let me know if you can find a help)

*Ways to remember. If you don't like mine, feel free to find your own.

Winchester, CT - Historical toll for the covered bridge:

TOLLS	QUOTED IN THE LEGISLATIVE ACTION SETTING UP WTBY RIVER TPKE CO.		CENTS	MILLS
PERSON & HORSE	4	0		
CHAISE, SULKEY OR CHAIR	12	5		