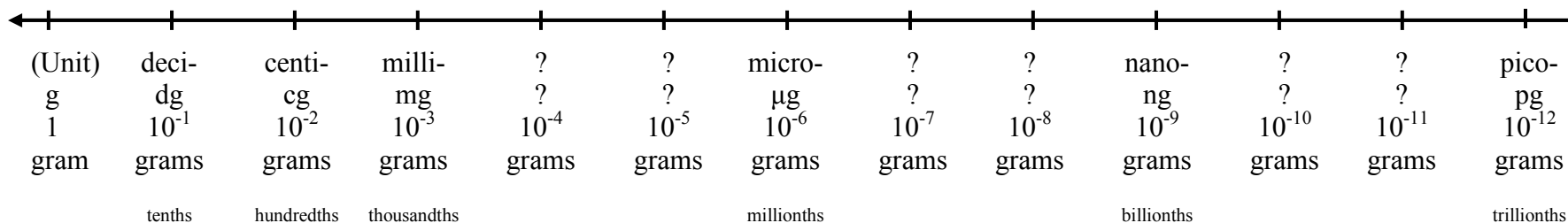


Small Metrics

In medicine, dosages are measured in small units. Solids like pills are measured in grams and parts of grams, and liquids are measured in Litres or parts of Litres. The standard metric chart deals with the prefixes kilo-, hecto-, deka-, (unit), deci-, centi-, and milli-. That takes us through thousandths of a unit. In medicine, we go even smaller, all the way down to trillionths of a unit. Therefore, we need to add the prefixes “micro-” (millionths), “nano-” (billionths) and “pico-” (trillionths).

The chart below will help you convert between these small units, using grams.



Examples:

32.5cg = _____ µg (micrograms)

You are moving from 10⁻² to 10⁻⁶, you are moving four places, or using 10,000 as your conversion number. Since you are moving to the right, you must multiply. 32.5 times 10,000 is 325,000.

Simpler method:

Put your pencil on the mark above cg. Count the spaces as you move to the mark above µg (four). Now move the decimal in the original number four places. Since you moved to the right to get from cg to µg, move the decimal to the right.

Either way, 32.5 cg = 325,000 µg.

Now try:

45,700 ng = _____ mg (Hint: the decimal will move left).