

The metric system is based on powers of ten. As we go from kilo to milli, the value increases. Going the opposite way gets smaller. This unit is intended to help you make the conversions easily.

example: 421 kilograms (kg) = 4210 hectograms (hg)

32 liters (l) = 3200 centiliters (cl)

78 centimeters (cm) = .078 dekameters (dam)

We will use a mnemonic device to aid us. If we look at the following sentence, it will help us remember the order of the base from kilo to milli.

<u>K</u> ids	<u>H</u> ave	<u>D</u> ropped	<u>O</u> ver	<u>D</u> ead	<u>C</u> onverting	<u>M</u> etrics
k	h	d	l*	d	c	m
i	e	e	m**	e	e	i
l	c	k	g***	c	n	l
o	t	a		i	t	l
	o				i	i
	*liters	**meters	***grams			

To convert from one unit to another, we simply count the number of places to the right or left and move our decimal point accordingly.

For instance, if we wish to find out how many grams in 420 centigrams, we count left from centigrams to grams (remember to include the "over" column), which is two places, and move our decimal point two places left.

Thus: 420 cg = 4.20 g

If we wish to convert 72.3 meters to centimeters, we count right from meters to centimeters, which is two places, and move our decimal point accordingly.

Thus: 72.3 m = 7230 cm

NOTE: We shall use da as the abbreviation for deka and d for deci.

To change .82 mm to dm, we count two places left and get: .82 mm = .0082 dm

Now try the following, and check your answers.

a) .0012 km = _____ dm

c) 43.98 cg = _____ g

e) 64.2 mm = _____ m

g) 1 kl = _____ l

i) 12 km = _____ m

k) 17 kg = _____ dg

m) .35 km = _____ m

o) 5 l = _____ ml

q) 1725 m = _____ km

s) 1.7 cm = _____ mm

u) 10 g = _____ mg

b) 9.63 dal = _____ kl

d) 496 km = _____ m

f) 12 mm = _____ cm

h) 30 ml = _____ l

j) 2 g = _____ mg

l) 72 dal = _____ l

n) 56 cg = _____ g

p) 75 kg = _____ mg

r) 7 cl = _____ l

t) 2.4 km = _____ hm

v) 15 hl = _____ ml

ANSWERS: a) 12 dm b) .0963 kl c) .4398 g d) 496000 m e) .0642 m
f) 1.2 cm g) 1000 l h) .030 l i) 12000 m j) 2000 mg
k) 170000 dg l) 720 l m) 350 m n) .56 g
o) 5000 ml p) 75000000 mg q) 1.725 km r) .07 l
s) 17 mm t) 24 hm u) 10000 mg v) 1500000 ml