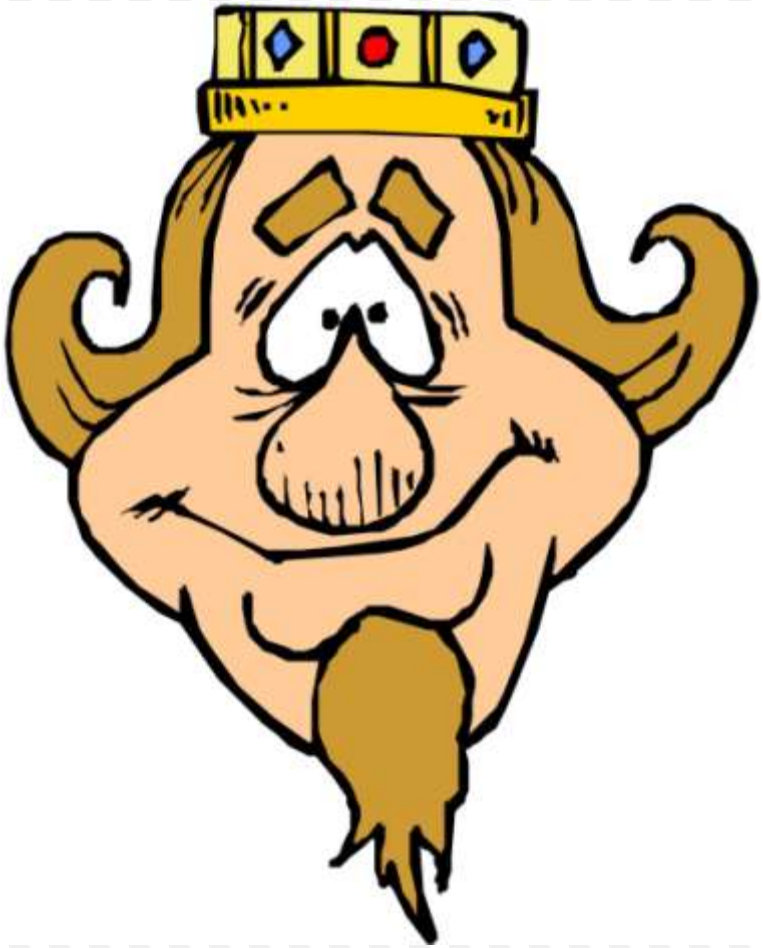
METRIC CONVERSION

How to convert within the metric system



The Metric System

is based on sets of 10.

$1 \times 10 = 10$

$10 \times 10 = 100$

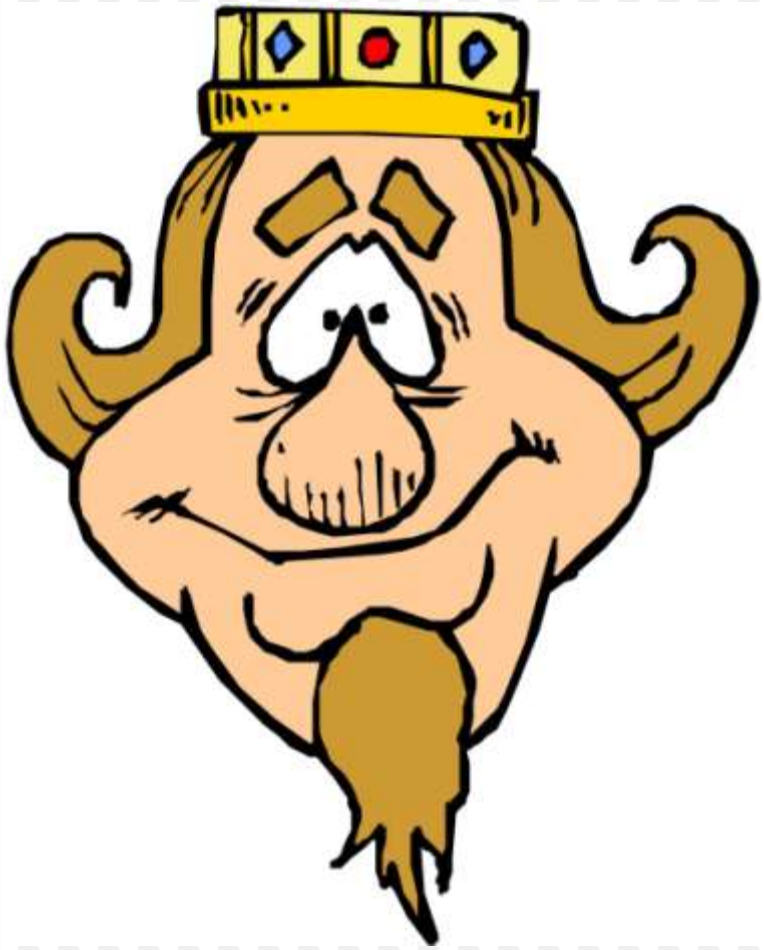
$10 \times 100 = 1{,}000$

The Metric System

Is used by scientists all over the world!

Do you remember…

King Henry?



The pneumonic:

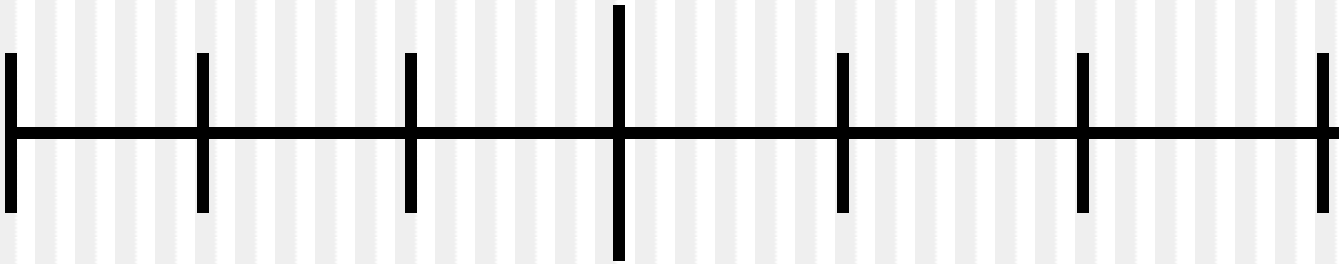
King Henry Died Unexpectedly Drinking Chocolate Milk

Memorize this!

You must also know…

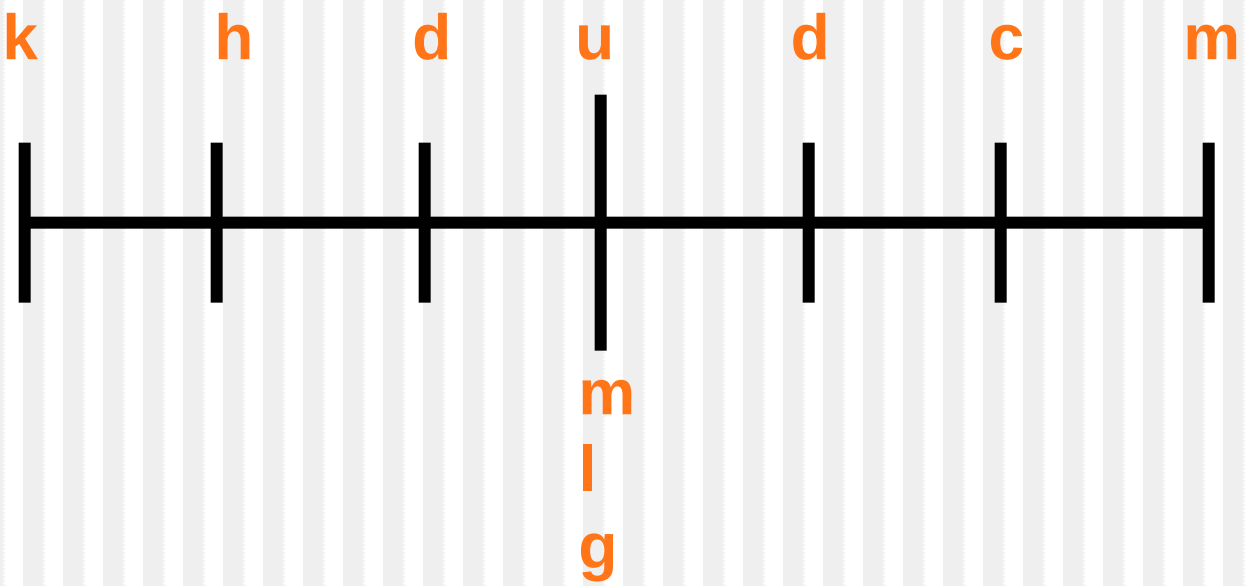
…how to convert within the Metric System. Here's a good device:

On your paper draw a line and add 7 tick marks:



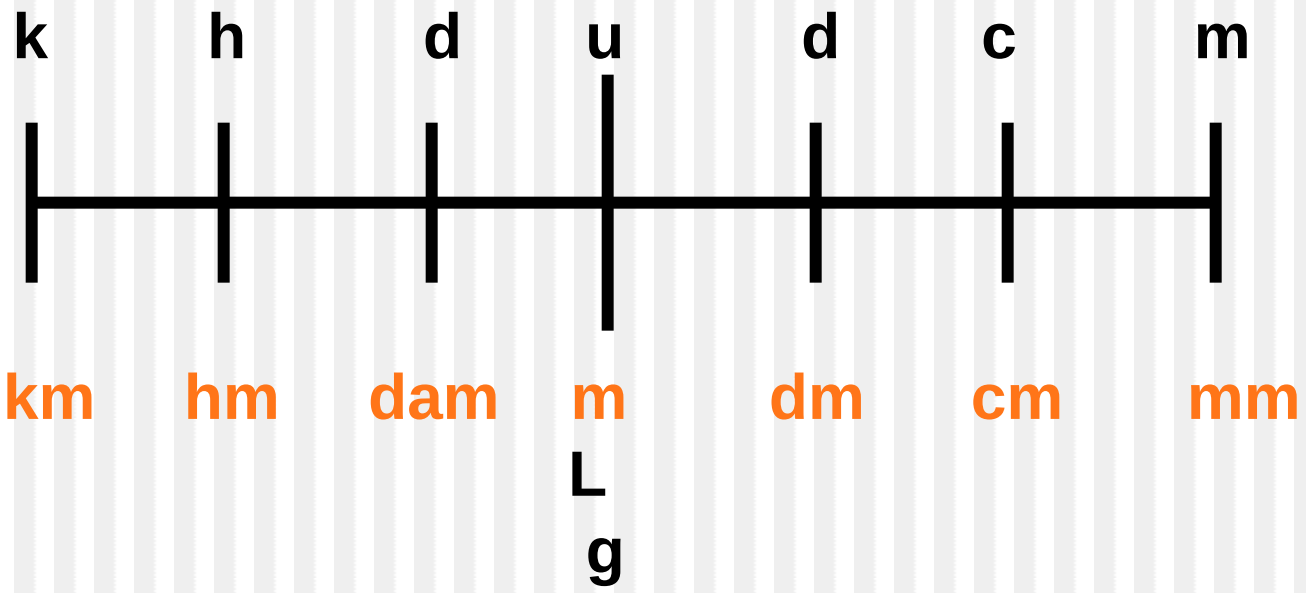
Next:

Above the tick marks write the abbreviations for the King Henry pneumonic:

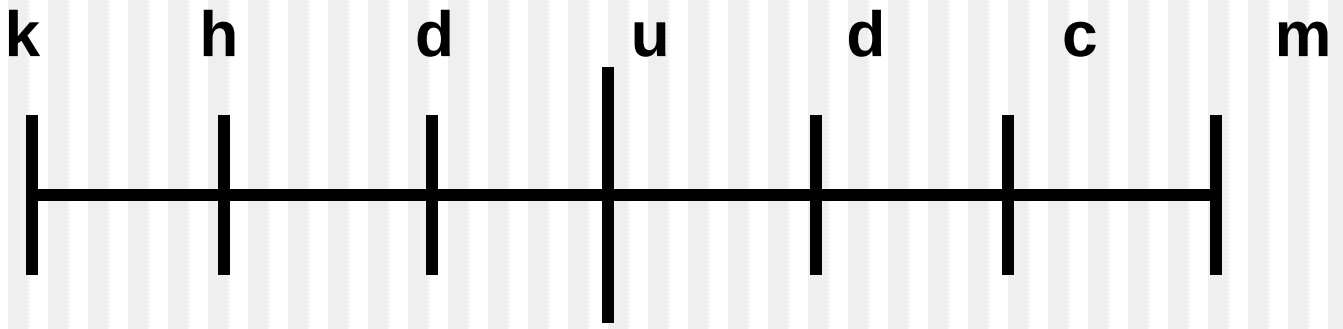


Write the units in the middle under the “U”.

Let's add the meter line:



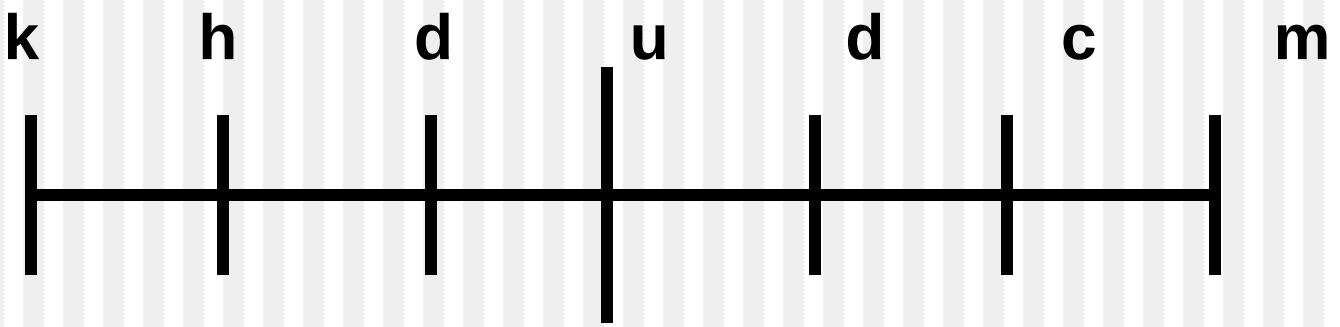
Let's add the liter line:



km	hm	dam	m	dm	cm	mm
kL	hL	daL	L	dL	cL	mL
			g			

Deca can also be dk or da

Let’s add the gram line:



km	hm	dam	m	dm	cm	mm
kl	hl	dal	l	dl	cl	ml
kg	hg	dag	g	dg	cg	mg

How to use this device:

1. **Look at the problem. Look at the unit that has a number. On the device put your pencil on that unit.**

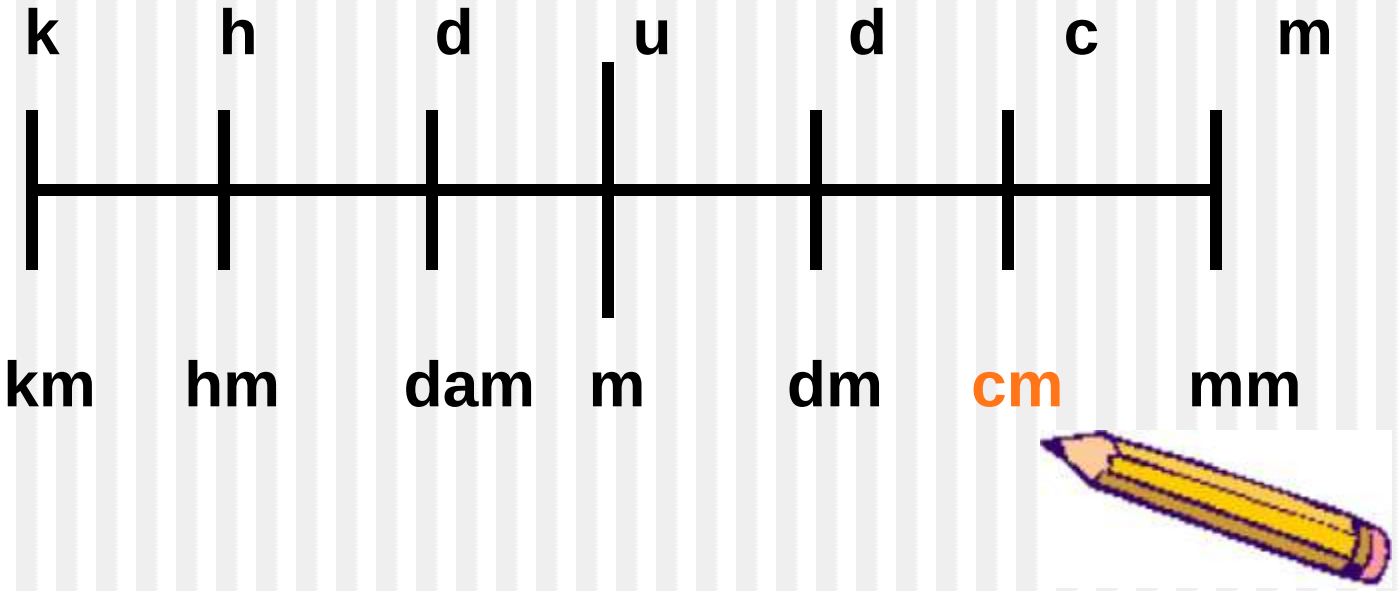
2. **Move to new unit, counting jumps and noticing the direction of the jump.**

3. **Move decimal in original number the same # of spaces and in the same direction.**

Example #1:

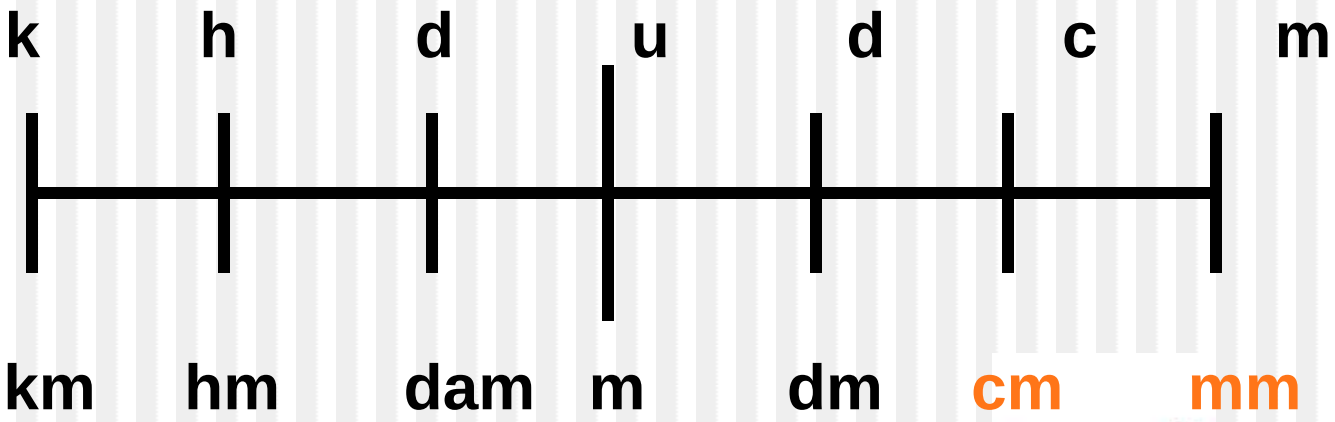
(1) Look at the problem. 56 cm = _____ mm

Look at the unit that has a number. 56 cm
On the device put your pencil on <u>that</u> unit.



Example #1:

2. Move to new unit, counting jumps and noticing the direction of the jump!



One jump to the right!

Example #1:

3. **Move decimal in original number the same # of spaces and in the same direction.**

56 cm = _____ mm

56.0.

One jump to the right!

Move decimal one jump to the right.
Add a zero as a placeholder.

Example #1:

56 cm = _____ mm

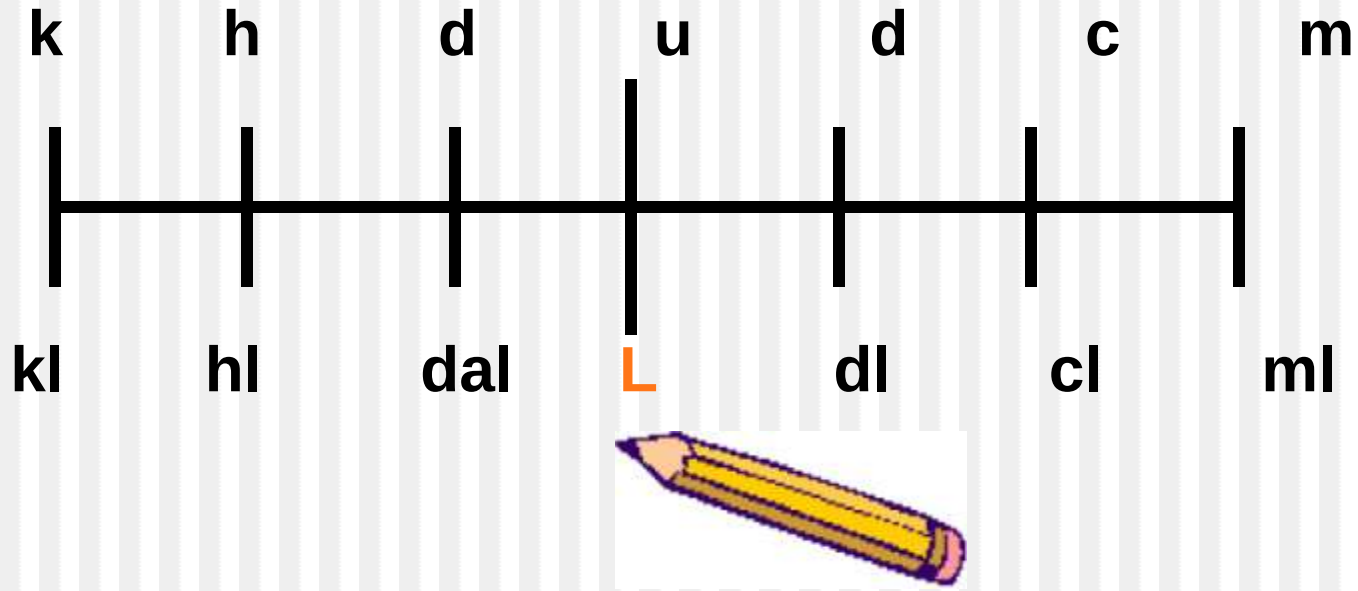
56cm = 560 mm

Example #2:

(1) Look at the problem. 7.25 L = _____ kL

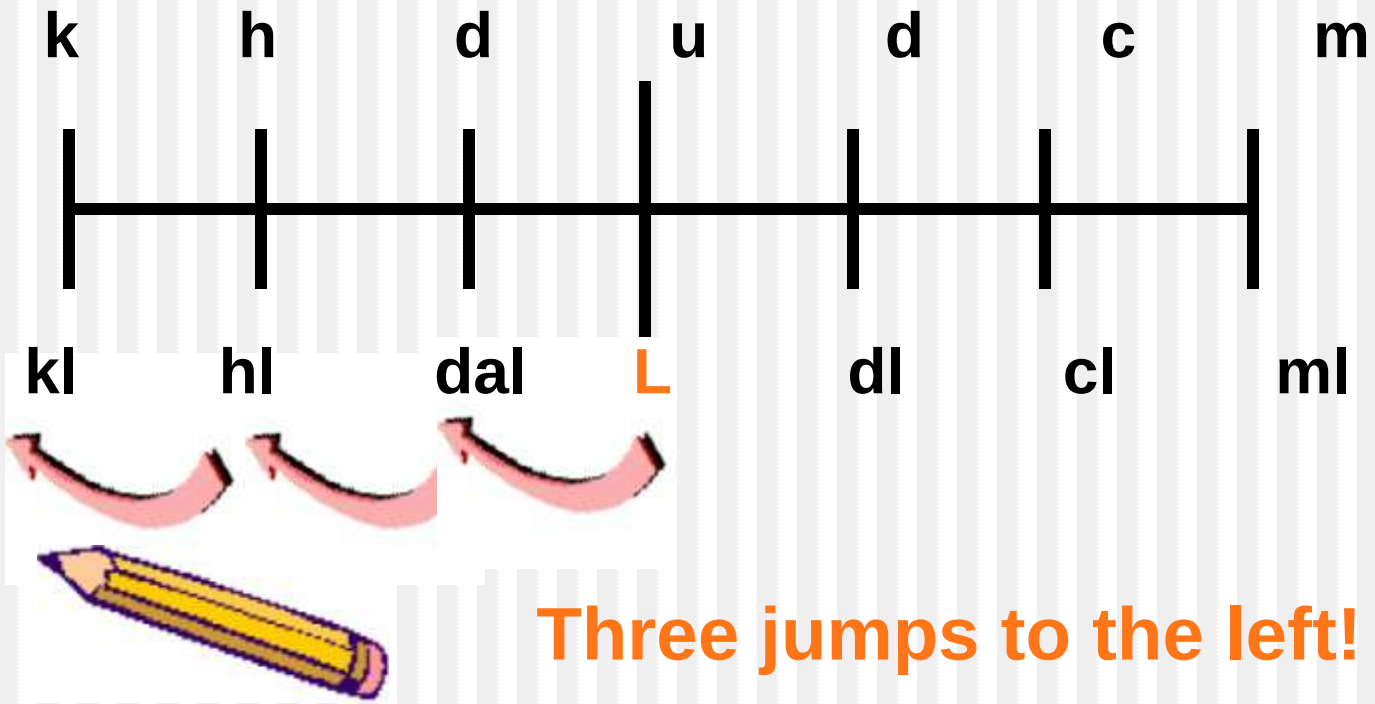
Look at the unit that has a number. 7.25 L

On the device put your pencil on <u>that</u> unit.



Example #2:

2. Move to new unit, counting jumps and noticing the direction of the jump!



Three jumps to the left!

Example #2:

(3) Move decimal in original number

the same # of spaces and in the same direction.

7.25 L = _____ kL

.007.25

Three jumps to the left!

Move decimal to the left three jumps.
Add two zeros as placeholders.

Example #2:

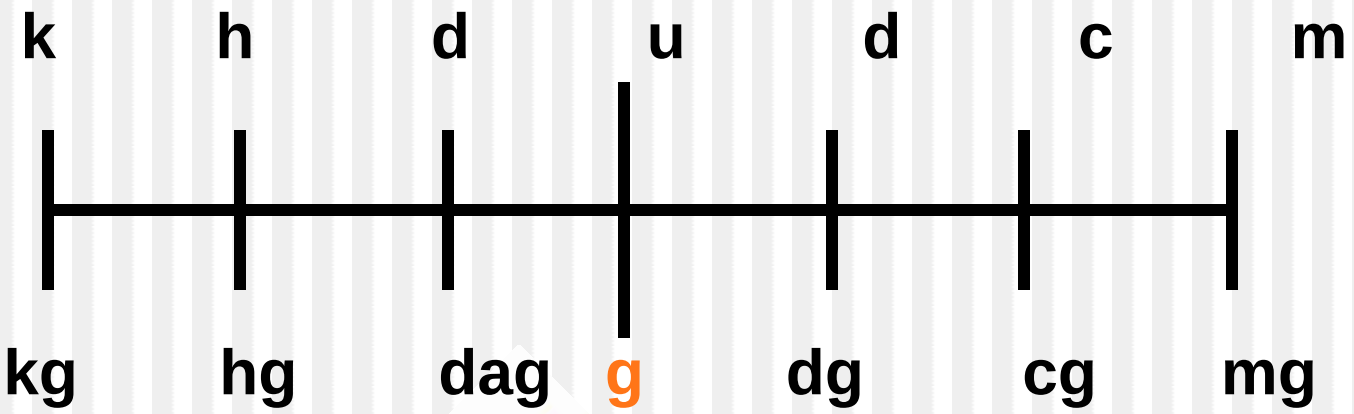
7.25 L = _____ kL

7.25 L = .00725 kL

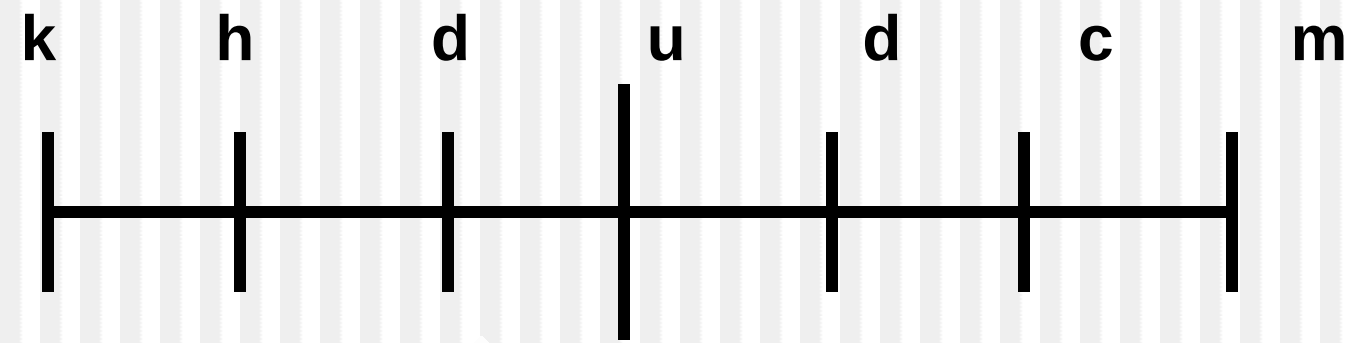
Example #3:

Try this problem on your own:

45,000 g = _____mg



Example #3:



Three jumps to the right!

45,000.000.

Example #3:

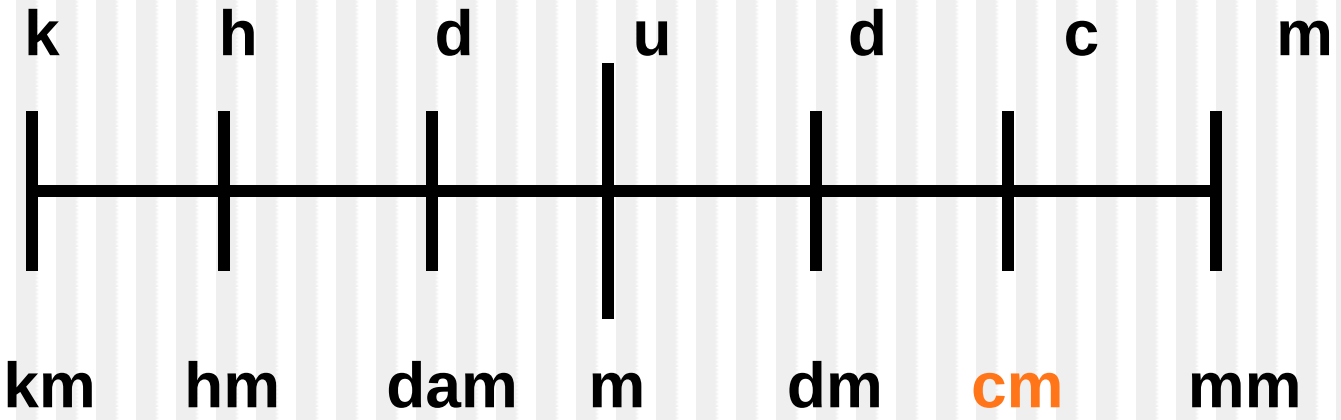
45,000 g = 45,000,000 mg

Three jumps to the right!

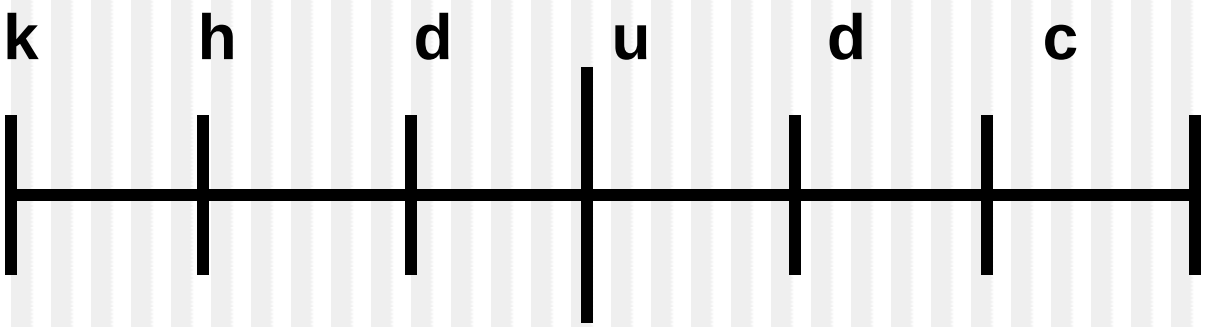
Example #4:

Try this problem on your own:

5 cm = _____ km



Example #4:



Five jumps to the left!

.00005.

Example #4:

5 cm = .00005 km

Five jumps to the left!

One last caution:

Be careful NOT to count the spot you start from, where you put your pencil point.

Only count the jumps!