

Name: Key Period: 5 Date: 8/22/19

The Metric System:

The metric system was developed in France and has several advantages over the English system, which is still in place in the U.S. However, the scientific community has adopted the metric system almost from the start. The advantages of the metric system are:

- It was based on a decimal system (i.e. powers of ten). Therefore, it simplifies calculations by using a set of prefixes, which we will discuss in a few minutes.
- It is used by most other nations of the world, and therefore, it has commercial and trade advantage

Prefixes

King	Hector	Diec	by	drinking chocolate	milk
Kilo	Hecto	Deca	Base	Deci	Centi
1,000	100	10	1	.1	.001
10^3	10^2	10^1	10^0	10^{-1}	10^{-2}
Kl	Hl	Dl	Volume liter (l)	dl	cl
Km	Hm	Dm	Length meter (m)	dm	cm
Kg	Hg	Dg	Mass gram (g)	dg	cg

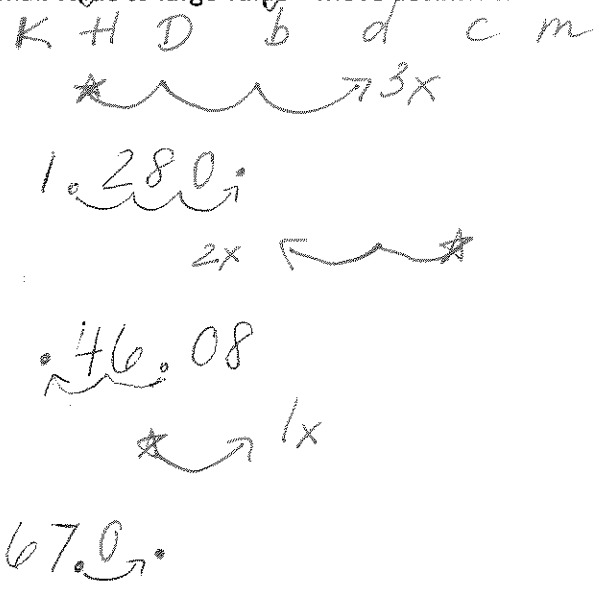
*** Large value to small value = move decimal to the right

*** Small value to large value = move decimal to the left

1) $1.28 \text{ Hg} = \underline{1,280} \text{ dg}$

2) $46.08 \text{ cl} = \underline{4608} \text{ l}$

3) $67 \text{ Dm} = \underline{670} \text{ m}$



Common units:

- Temperature: Celsius (°C)
- Time: second
- Power, radiant flux: watt
- Energy: Joule (J)
- Electric Potential: volt
- Length: meter
- Mass: kilogram
- Volume: Liter