

Today: August 22

Read section 1.1-1.6 pg. 1-12

Do worksheet and assigned problems

Tomorrow

"lab", pick lab partner and lab station. Buy lab stuff

Lab is Rigge 121.

Problem club with Ali:

7:00pm - 8:30pm Sundays + Tuesdays HLSB 359

- starts -
8/28 -

SI units

1 gram, g

Tera	T	10^{+12}
giga	G	10^{+9}
megagram	Mg	$1 \text{ Mg} = 1 \times 10^{+6} \text{ g}$
kilogram	kg	$1 \text{ kg} = 1000 \text{ g}$
gram	g	$1 \text{ g} = 1 \text{ g}$
milligram	mg	$1 \text{ mg} = 1 \times 10^{-3} \text{ g}$
microgram	μg	$1 \mu\text{g} = 1 \times 10^{-6} \text{ g}$
nanogram	ng	$1 \text{ ng} = 1 \times 10^{-9} \text{ g}$
picogram	pg	$1 \text{ pg} = 1 \times 10^{-12} \text{ g}$
septogram	sg	$1 \text{ sg} = 1 \times 10^{-15} \text{ g}$

convert 4.73 kg into g.

$$\text{mass: } \frac{4.73 \text{ kg} \mid 1 \times 10^{+3} \text{ g}}{1 \text{ kg}} = \boxed{4730 \text{ g}}$$

SI units

mass, gram

length, meter

time, seconds

temperature

Convert 4.4×10^{-6} μs into ns.

$$\frac{4.4 \times 10^{-6} \cancel{\mu\text{s}}}{1 \cancel{\mu\text{s}}} \times \frac{1 \times 10^{-6} \cancel{\text{s}}}{1 \times 10^{-9} \cancel{\text{s}}} = \boxed{4.4 \times 10^{-2} \text{ ns}}$$

Convert 280 μm to nm

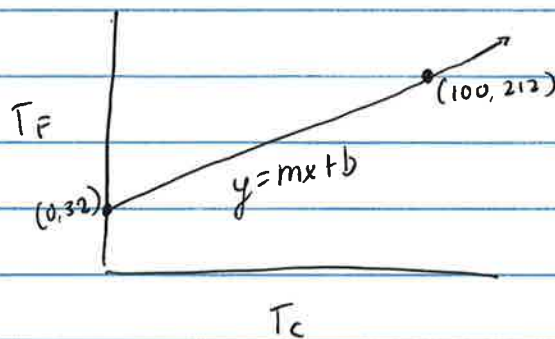
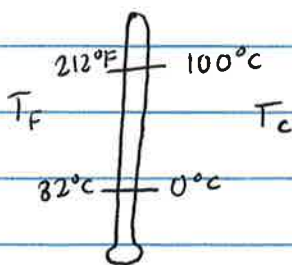
$\mu\text{m} \rightarrow \text{m} \rightarrow \text{nm}$

$$1 \mu\text{m} = 1 \times 10^{-12} \text{ m}$$

$$1 \text{ nm} = 1 \times 10^{-9} \text{ m}$$

$$\text{length: } \frac{280 \mu\text{m}}{1 \mu\text{m}} \times \frac{1 \times 10^{-12} \text{ m}}{1 \times 10^{-9} \text{ m}} = \boxed{0.28 \text{ nm}}$$

Temperature



$$\boxed{T_F = 1.8 T_C + 32}$$

absolute zero: 0 Kelvin (K)

$$\boxed{T_K = T_C + 273}$$