(4) At. mass (#p+#n) → 24
Mg
12
#protons
Atom #
+2 ← Charge
(Ions)

12p, 10e⁻, 12n

Na Element → combine → Na Cl Compounds

Smallest part.
Atom → Molecule

Neutral! #p = #e⁻

⊕ cation
⊖ Anions

Sep 7-7:07 AM

(5) endothermic
enter
heat
← System's point of view.

exothermic
ext.

Sep 7-7:40 AM

(6) $H-C\equiv C-C\equiv C-C\equiv N$

σ Sigma bond

6σ

6π

π Pi bonds.

σ — sb 2e-

$\sigma+\pi \equiv$ db 4e-

$\sigma+2\pi \equiv$ tb 6e-

Sep 7-7:43 AM

(7) $\frac{\sqrt{v}}{a} = \frac{a(z-b)}{a}$

$\frac{\sqrt{v}}{a} = z-b$

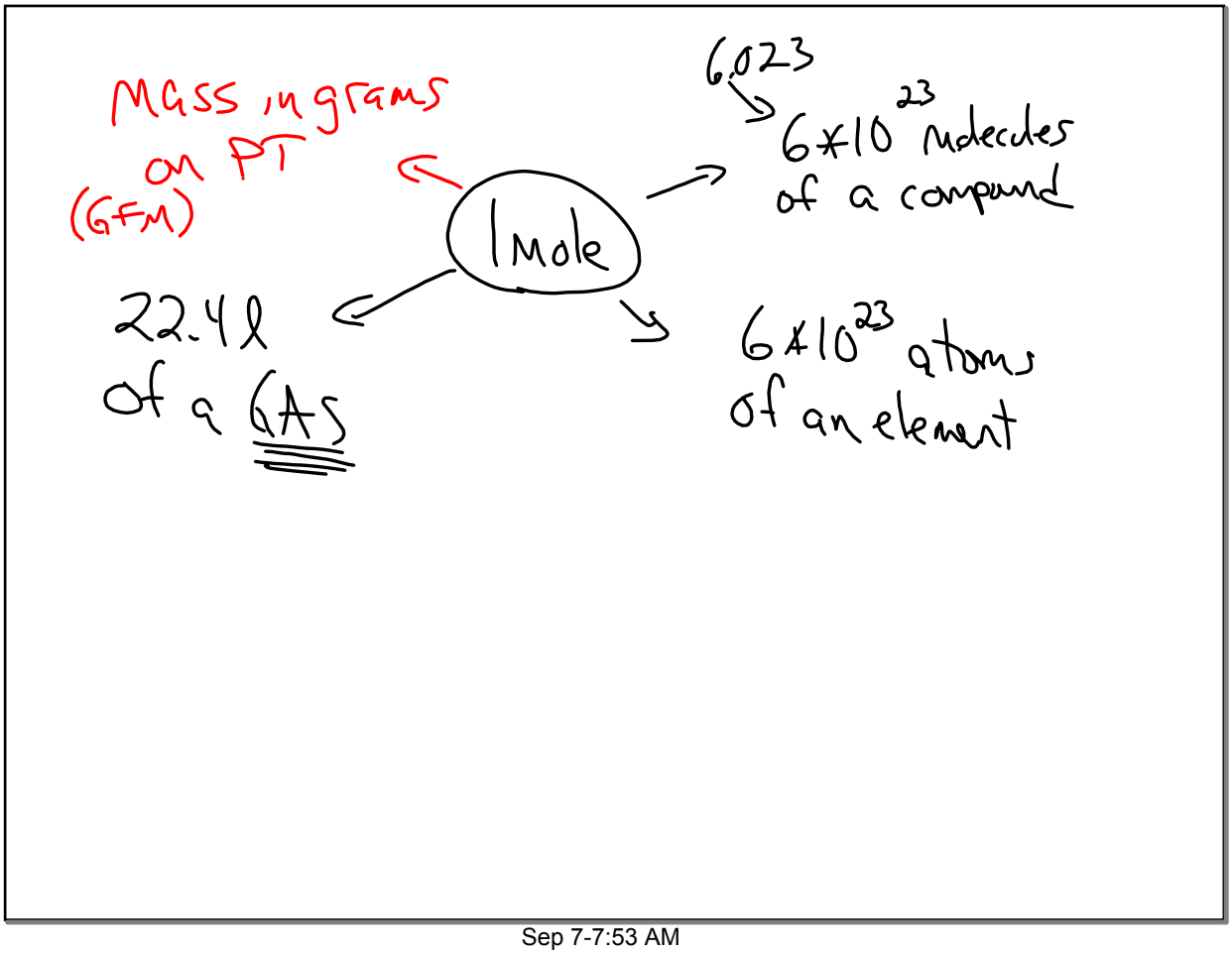
$+b \quad +b$

$\frac{\sqrt{v}}{a}+b = z$

$\sqrt{6x^2y^4}$

$\sqrt{6x^2}\ y^4$

Sep 7-7:49 AM



Sep 7-7:53 AM

(8) # Mole O in $1*10^{22}$ molecules SO_3?

$$\frac{1*10^{22}\ \text{molecules } SO_3}{1} * \frac{1\ \text{mole } SO_3}{6*10^{23}\ \text{molecules } SO_3} * \frac{3\ \text{mole O}}{1\ \text{mole } SO_3} =$$

Sep 7-7:58 AM

(9) $T_f = \frac{9}{5} T_c + 32$

$68 = \frac{9}{5} T_c + 32$

$-32 \qquad -32$

$\left(\frac{5}{9}\right) 36 = \frac{9}{5} T_c \left(\frac{5}{9}\right)$

$20^\circ C$

Sep 7-8:09 AM

(10) $3MnO_2 + 4Al \Rightarrow 3Mn + 2Al_2O_3$

(12) $C_5H_8O_2$

$\%C = \frac{Part}{Whole} * 100$

$\frac{5C}{C_5H_8O_2} = \frac{5(12)}{5(12) + 8(1) + 2(16)} = \frac{60}{100} = 60\%$

Sep 7-8:11 AM

(13) 6×10^{22} molecules H_2O = _____ g H_2O

$$\frac{6 \times 10^{22} \text{ molecules } H_2O}{6 \times 10^{23} \text{ molecules } H_2O} \times \frac{1 \text{ mole } H_2O}{1 \text{ mole } H_2O} \times \frac{18 \text{ g } H_2O}{1 \text{ mole } H_2O} = 1.8 \text{ g } H_2O$$

Sep 7-8:17 AM

(14) $\frac{\text{Molarity}}{1} = \frac{\text{moles solute}}{\ell \text{ of solution}}$

$$\text{Moles} = M * \ell$$

Sep 7-8:20 AM

(15) Dilution (Add H_2O)

150ml = 0.150 l

Moles start = Moles end.

$M * ? = M * l$

$(0.2)(0.150) = 1\ (l)$

$0.03\ l$

0.03×10^0

$3 \times 10^{-2}\ l$

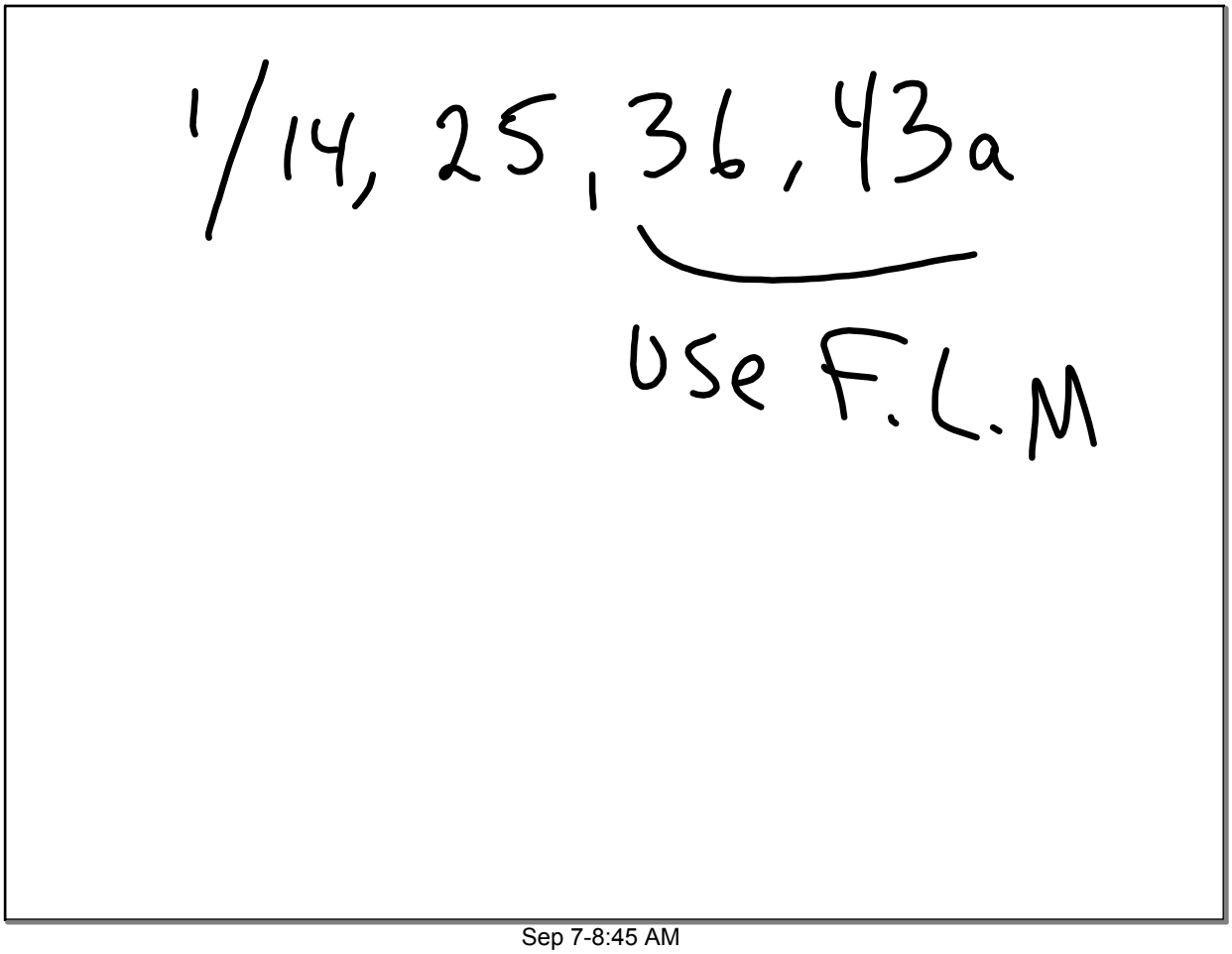
Sep 7-8:22 AM

Chp 1

Phases of Matter

S, L, G

Sep 7-8:26 AM



Sep 7-8:45 AM