PS 3-1

(19)

$C_x H_y O_z$ 1:2:1

↗ MOLES of each element. Subscripts.

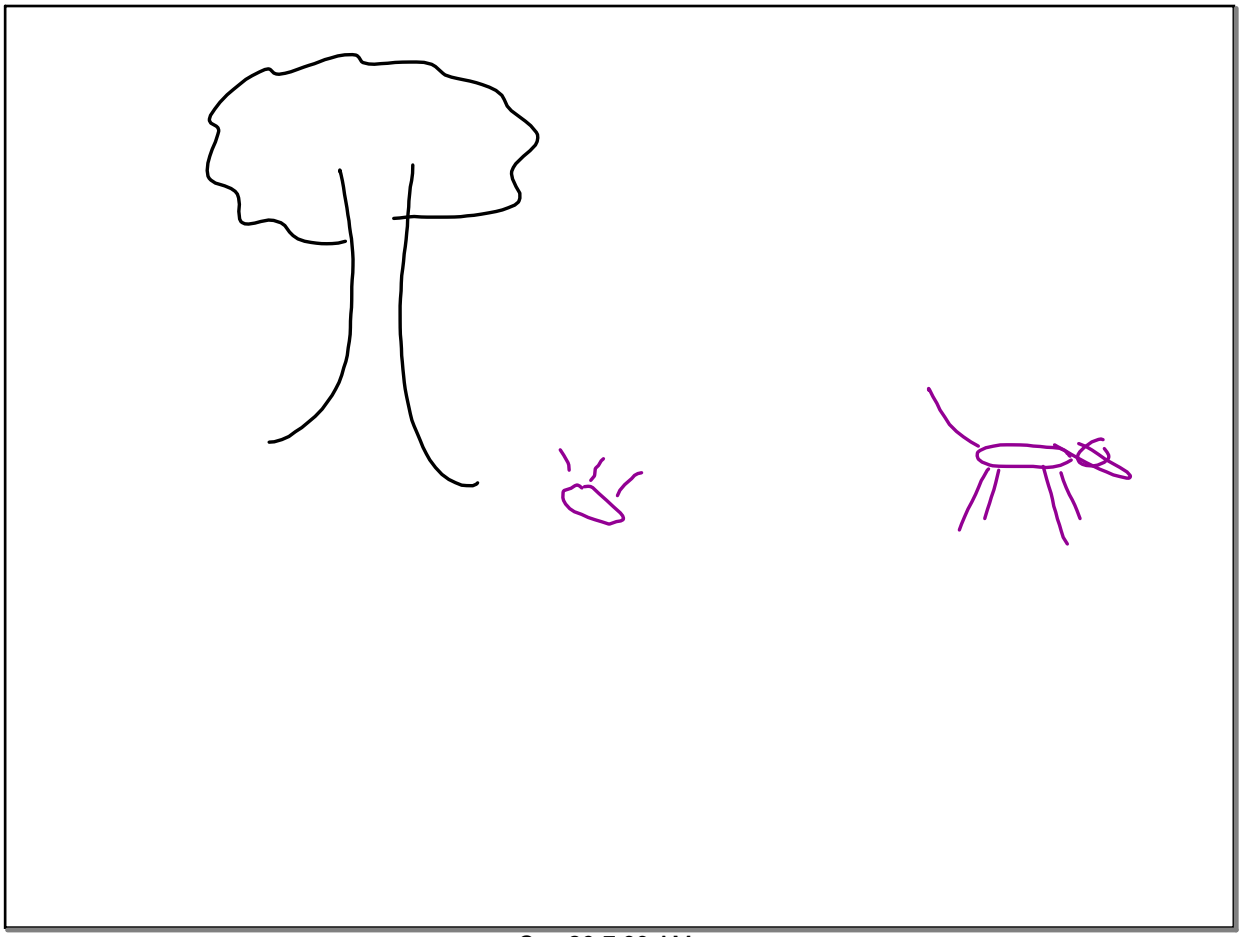
% = out of 100 → Assume 100g sample % ⇒ g

C 40% $\frac{40\text{g C}}{12\text{g}} \times \frac{1\text{ mole C}}{} = 3.33\text{ mole C}$ / 3.33 (1)

H 6.7% $\frac{6.7\text{g H}}{1\text{g H}} \times \frac{1\text{ mole H}}{} = 6.7\text{ mole H}$ / 3.33 (2)

O $\frac{53.3\%}{100\%}$ $\frac{53.3\text{g O}}{16\text{g O}} \times \frac{1\text{ mole O}}{} = 3.33\text{ mole O}$ / 3.33 (1)

Sep 26-7:31 AM



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1 : 2.5 : 1 after dividing by smallest #

2 : 5 : 2

0.5 * 2

0.25 or 0.75 *4

0.33 or 0.66 *3

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(22) $Pb(NO_3)_2 + 2KI \rightarrow PbI_2 + 2KNO_3$ (mole ratio)

6.5 g ? g

$$\frac{6.5\text{ g KI}}{1} \left|\frac{1\text{ mol KI}}{166\text{ g KI}}\right| \frac{1\text{ mole PbI}_2}{2\text{ mol KI}} \left|\frac{461\text{ g PbI}_2}{1\text{ mole PbI}_2}\right.$$

9.026 g PbI_2

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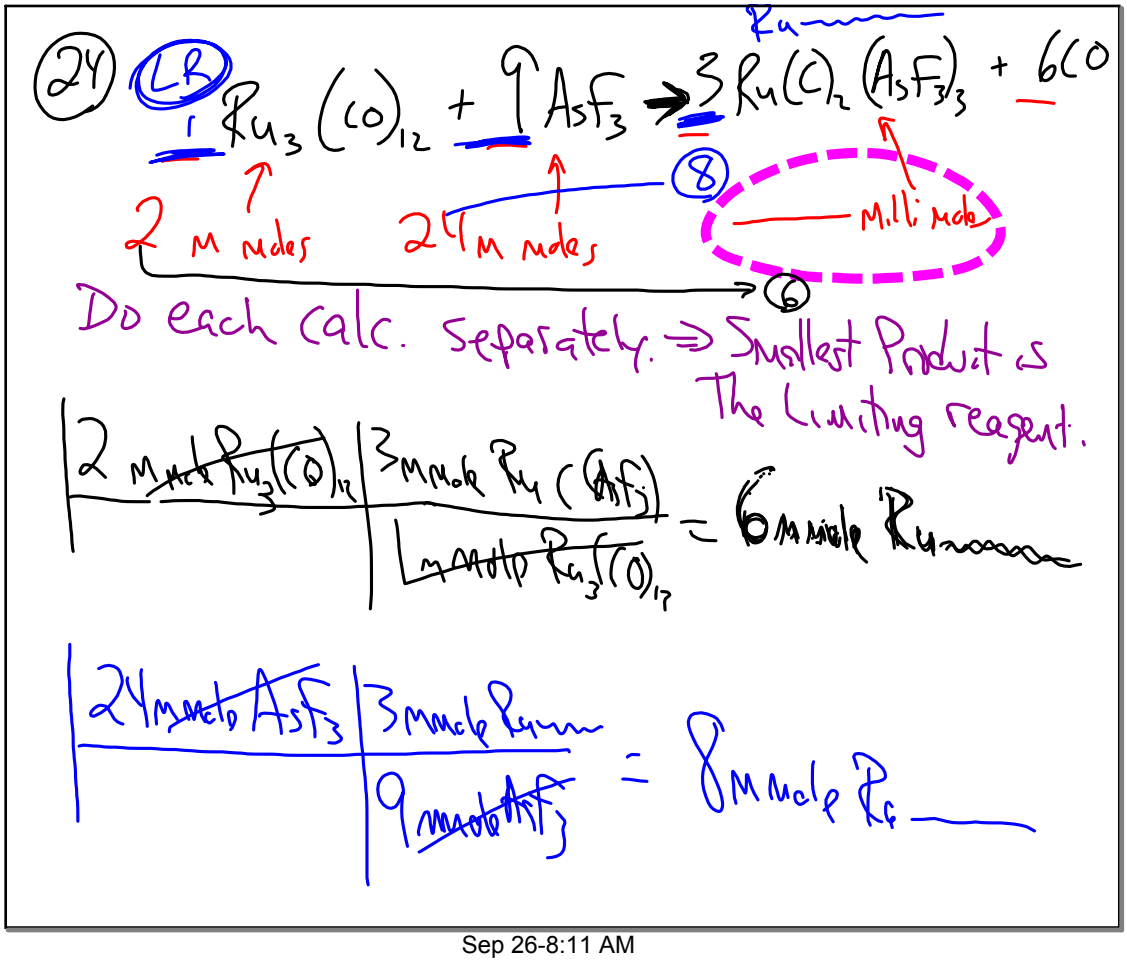

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$$\frac{1\ \text{pound}}{16\ \text{oz}} = \frac{1\ \text{milli pound}}{16\ \text{milli oz}}$$

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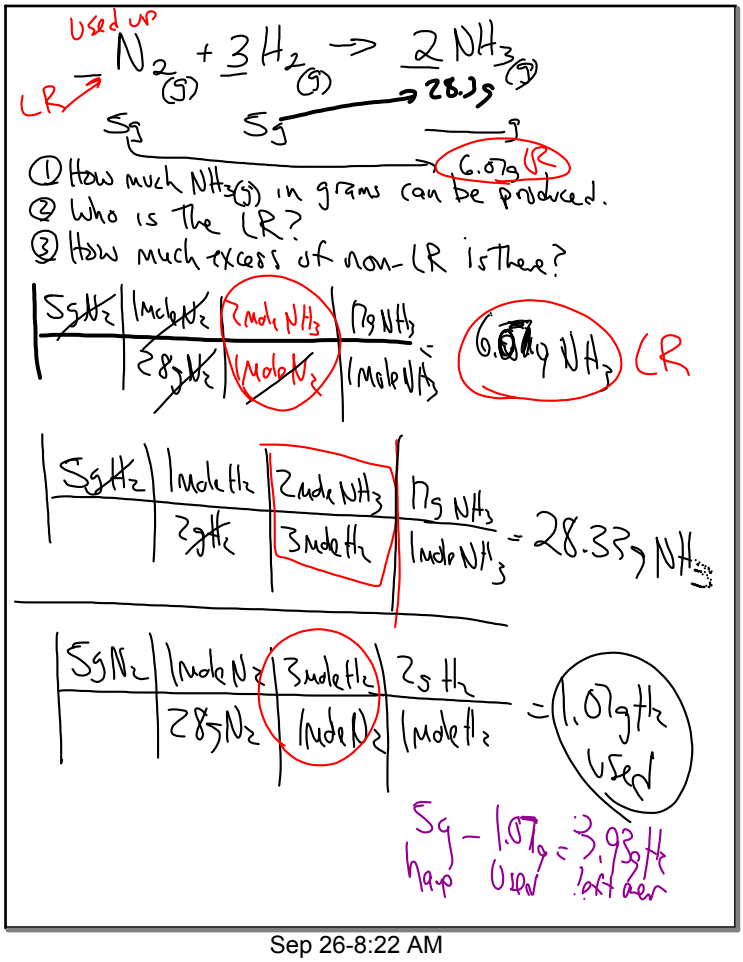

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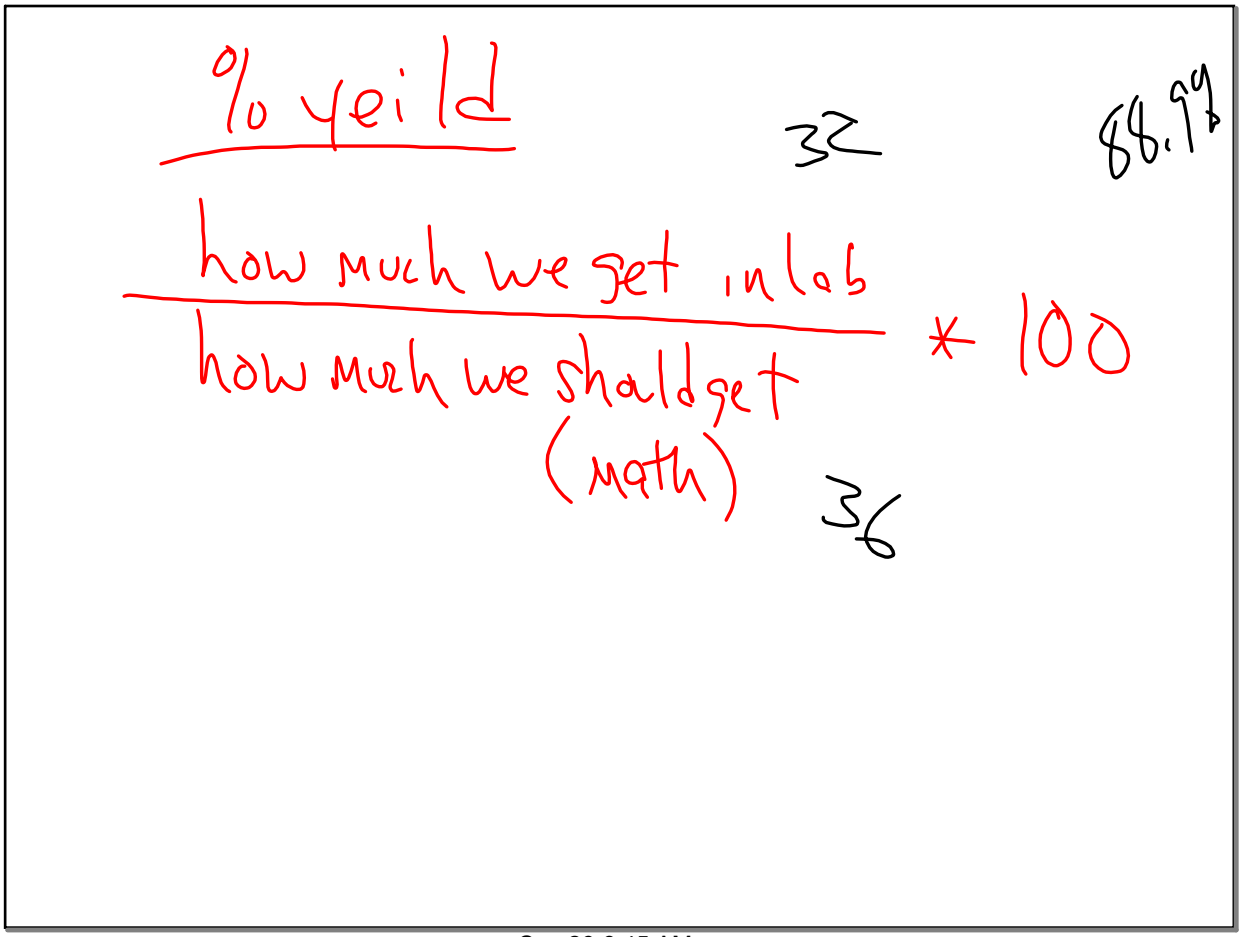

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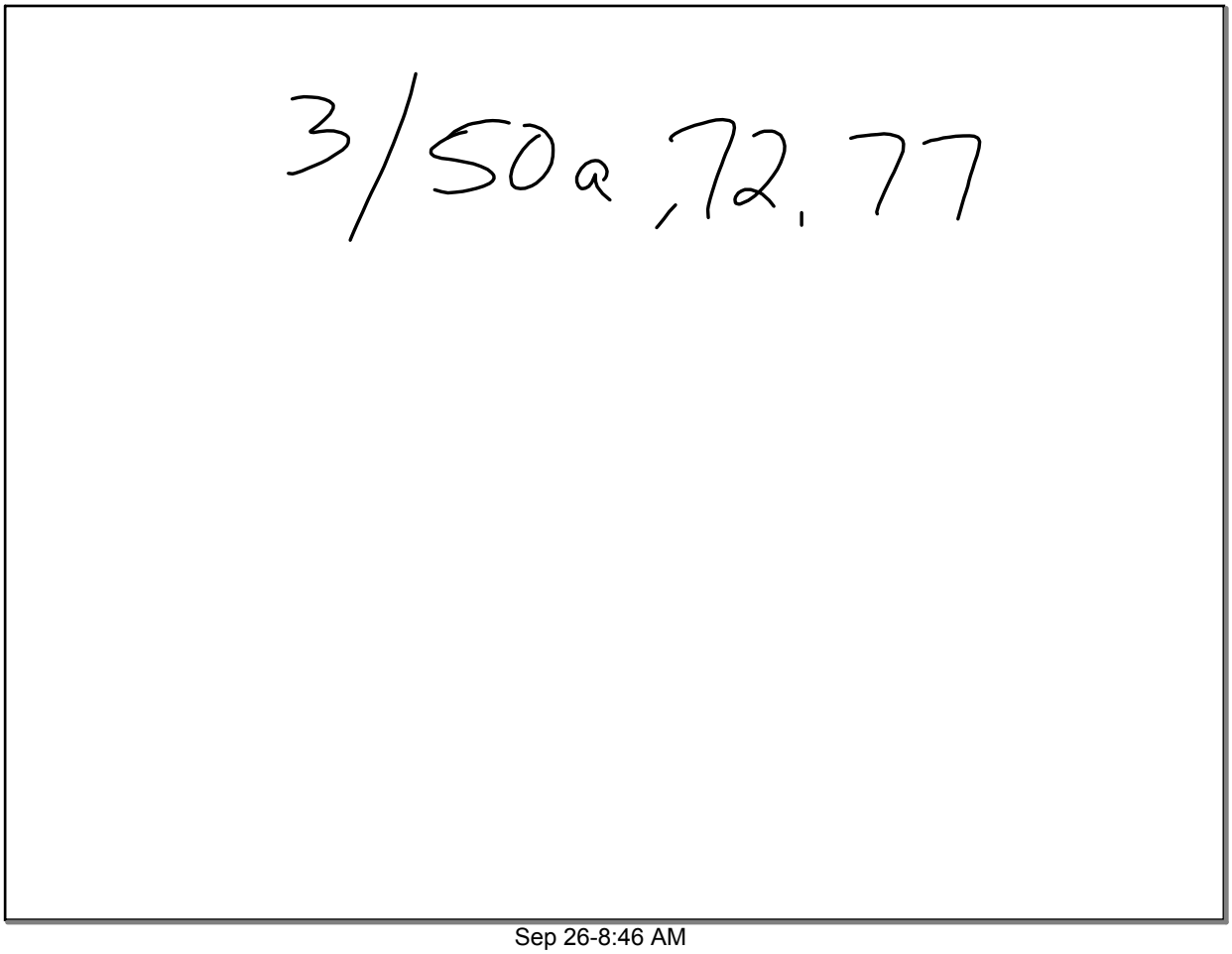

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