Go over these answers At 2:30. On the projector

111Name _____
Teacher _____
Class _____ Block ___
Date _____

Key

Quiz Practice

Name	Formula	Name	Formula
Phosphorous acid	H_3PO_3	trisulfer monoiodide	S_3I
cobalt (II) sulfate	$CoSO_4$	bromine	Br_2
hydrosulfuric acid	H_2S	carbon tetrahydride	CH_4
iron (III) nitrite	$Fe(NO_2)_3$	chlorine gas	Cl_2
Sulfuric acid	H_2SO_4	sulfur pentafluoride	SF_5
iron (II) nitrate	$Fe(NO_3)_2$	oxygen gas	O_2
acetic acid	$HC_2H_3O_2$	dinitrogen monoxide	N_2O
iron (II) phosphide	Fe_3P_2	nitrogen gas	N_2

Give the answer using the proper amount of **significant figures** and a **unit**.

1. 345.00 g + 34.9 g = 379.9g
2. 45.09 g / 12.009 mL = 3.75g/mL
3. 345.10 g + 34.9 g = 380.0g
4. 45.090 g / 12.009 mL = 3.7547g/mL
5. 340 g + 34.9 g = 370g
6. 45.0 g / 12.009 mL = 3.75g/mL
7. 18 g + 140.9 g = 159g
8. 250 g / 12.009 mL = 20.8 → 21g/mL

Give the answer using the proper amount of **significant figures** and a **unit**. Show your work.

9. Give the molar mass of NaCl.

22.99
+35.45
58.44g

10. Give the molar mass of H_2S.

2(1.008)
+32.07
34.09g

11. Give the molar mass of $Fe(OH)_3$.

55.85
3(16.00)
+3(1.008)
106.87g

12. Give the molar mass of H_3PO_3.

3(1.008)
30.97
+3(16.00)
81.99g

13. Convert 1.25×10^{12} atoms Mg to g Mg.

$$1.25\times10^{12}\ \text{atoms} \times \frac{24.31\ \text{g Mg}}{6.022\times10^{23}\ \text{atoms}} = 5.05\times10^{-11}\ \text{g}$$ 3sf

14. Convert 1.25×10^{12} g Fe to mol Fe.

$$1.25\times10^{12}\ \text{g} \times \frac{1\ \text{mol Fe}}{55.85} = 2.24\times10^{10}\ \text{mol}$$ 3sf

15. Convert 1.25×10^{12} atoms C to mol C.

$1.25\times10^{12}\text{ atom} \times \frac{1\text{ mol}}{6.022\times10^{23}\text{ atom}} = 2.08\times10^{-12}\text{ mol C}$

16. Convert 1.25×10^{12} g C to atoms C.

$1.25\times10^{12}\text{ g} \times \frac{6.022\times10^{23}}{12.011\text{ g}} = 6.27\times10^{34}\text{ atoms}$

17. Convert 2.3×10^{12} g Ca to mol Ca.

$2.3\times10^{12}\text{ g} \times \frac{1\text{ mol}}{40.08\text{ g}} = 5.7\times10^{10}\text{ mol Ca}$

18. Convert 2.3×10^{12} g Ca to atoms Ca

$2.3\times10^{12}\text{ g} \times \frac{6.022\times10^{23}\text{ atoms}}{40.08\text{ g}} = 3.5\times10^{34}\text{ atoms Ca}$

19. Convert 2.3×10^{12} atoms Cr to mol Cr.

$2.3\times10^{12}\text{ atom} \times \frac{1\text{ mol Cr}}{6.022\times10^{23}\text{ atom}} = 3.8\times10^{-12}\text{ mol Cr}$

20. Convert 2.3×10^{12} atoms Cr to g Cr.

$2.3\times10^{12}\text{ atom} \times \frac{52.00\text{ g Cr}}{6.022\times10\text{ atoms}} = 1.98\text{?}$ Go to # 33 $2.0\times10^{-10}\text{ g Cr}$

21. Give the noble gas configuration for nickel.

Skip

22. Give the orbital notation for carbon.

23. Give the electron configuration for aluminum

24. Give the noble gas configuration for iodine.

25. Give the orbital notation for aluminum.

26. Give the electron configuration for sulfur.

27. Give the noble gas configuration for silver.