Mole Calculation Worksheet

1) How many moles are in 15 grams of lithium?

2.2 mol Li

2) How many grams are in 2.4 moles of sulfur?

77 g S

3) How many moles are in 22 grams of argon?

.55 mol Ar

4) How many grams are in 88.1 moles of magnesium?

2140 g Mg

5) How many moles are in 2.3 grams of phosphorus?

.074 mol P

6) How many grams are in 11.9 moles of chromium?

619 g Cr

7) How many moles are in 9.8 grams of calcium?

.24 mol Ca

8) How many grams are in 238 moles of arsenic?

17,800 g As

What are the molecular weights of the following compounds?

9) NaOH 40.00 g/mol

10) H_2O 18.02 g/mol

11) $MgCl_2$ 95.21 g/mol

12) H_3PO_4 97.99 g/mol

13) Mn_2Se_7 662.60 g/mol

14) $(NH_4)_2SO_4$ 132.15 g/mol

15) How many grams are in 4.5 moles of sodium fluoride, NaF?

1.9×10^2 g NaF

16) How many moles are in 98.3 grams of aluminum hydroxide, $Al(OH)_3$?

1.26 mol $Al(OH)_3$

17) How many grams are in 0.02 moles of beryllium iodide, BeI_2?

5 g BeI_2

18) How many moles are in 68 grams of copper (II) hydroxide, $Cu(OH)_2$?

.70 mol $Cu(OH)_2$

19) How many grams are in 3.3 moles of potassium sulfide, K_2S?

3.6×10^2 g K_2S

20) How many moles are in 1.2×10^3 grams of ammonia, NH_3?

71 mol NH_3

21) How many grams are in 2.3×10^{-4} moles of calcium phosphate, $Ca_3(PO_3)_2$?

6.4×10^{-2} g $Ca_3(PO_3)_2$

22) How many moles are in 3.4×10^{-7} grams of silicon dioxide, SiO_2?

5.7×10^{-9} mol SiO_2

23) How many grams are in 1.11 moles of manganese sulfate, $Mn_3(SO_4)_7$?

9.30×10^2 g $Mn_3(SO_4)_7$