Mole Calculations Worksheet

*****Answers are included so that you can know if you are getting the problems right. To receive credit for this assignment you must show set up for all problems using dimensional analysis method*****

1. How many moles of Na are in 42 g of Na?
2. How many moles of O are in 8.25 g of O?
3. How much does 2.18 mol of Cu weigh?
4. What is the mass of 0.28 mol of iron?
5. How many moles are in 1.0×10^{9} atoms?
6. What is the mass of 1.20×10^{25} atoms of sulfur?
7. How many moles of CO molecules are in 52 g of CO?
8. How many moles of C_2H_6 are in 124 g?
9. How many moles of CCl_4 are there in 56 g?
10. How much does 2.50 mol of H_2SO_4 weigh?
11. How much does 0.25 mol of Fe_2O_3 weigh?
12. How many molecules are there in 52 g of CO?
13. How many formula units are in 22.4 g SnO_2?
14. How many molecules are in 116 g CCl_4?
15. What is the mass of 3.01×10^{23} formula units of Fe_2O_3?
16. What is the mass of 1.2×10^{25} molecules of CO?
17. How many formula units are in 5.33 mol of $CuCl_2$?

Answers

1. 1.8 mol Na 2. 0.516 mol O 3. 139 g Cu 4. 16 g Fe 5. 1.7×10^{-15} mol 6. 639 g S
7. 1.9 mol 8. 4.12 mol 9. 0.36 mol 10. 245 g 11. 40. g 12. 1.1×10^{24} molecules
13. 8.95×10^{22} formula units 14. 4.54×10^{23} molecules 15. 79.9 g Fe_2O_3 16. 5.6×10^{2} g CO
17. 3.21×10^{24} formula units