Mole Calculations Worksheet

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. What is the mass of 2.18 mol of Cu?
4. What is the mass of 0.28 mol of iron?
5. How many atoms are in 7.2 mol of chlorine?
6. How many atoms are in 36 g of bromine?
7. How many moles are in 1.0 x 109 atoms?
8. What is the mass of 1.20×10^{25} atoms of sulfur?
9. How many moles of CO molecules are in 52 g of CO?
10. How many moles of C_2H_6 are in 124 g?
11. How many moles of CCl_4 are there in 56 g?
12. How much does 2.50 mol of H_2SO_4 weigh?
13. How much does 0.25 mol of Fe_2O_3 weigh?
14. How many molecules are there in 52 g of CO?
15. How many formula units are in 22.4 g SnO_2?
16. How many molecules are in 116 g CCl_4?
17. What is the mass of 3.01×10^{23} formula units of Fe_2O_3?
18. What is the mass of 1.2×10^{25} molecules of CO?
19. How many O atoms are in 1.25 mol of SO_2?
20. How many moles of O atoms do you have when you have 1.20×10^{25} N_2O_5 molecules?
21. How many formula units are in 5.33 mol of $CuCl_2$?
22. How many copper atoms are in 5.33 mol of $CuCl_2$?
23. How many moles of Cl atoms are in 5.33 mol of $CuCl_2$?
24. How many moles of $CuCl_2$ contain 1.2×10^{23} atoms of Cl?
25. How many O atoms are in 3.15 mol of SnO_2?
26. How many H atoms are in 17.5 g $(NH_4)_2C_2O_4$?

Answers

1. 1.8 mol Na
2. 0.516 mol O
3. 139 g Cu
4. 16 g Fe
5. 4.3×10^{24} Cl atoms
6. 2.7×10^{23} Br atoms
7. 1.7×10^{-15} mol
8. 639 g S
9. 1.9 mol
10. 4.12 mol
11. 0.36 mol
12. 245 g
13. 40. g
14. 1.1×10^{24} molecules
15. 8.95×10^{22} formula units
16. 4.54×10^{23} molecules
17. 79.9 g Fe_2O_3
18. 5.6×10^{2} g CO
19. 1.51×10^{24} O atoms
20. 99.7 mol O
21. 3.21×10^{24} formula units
22. 3.21×10^{24} Cu atoms
23. 10.7 mol of Cl atoms
24. 0.10 mol $CuCl_2$
25. 3.79×10^{24} O atoms
26. 6.79×10^{23} H atoms