

Mole Conversions

Name _____ Date _____ Mod _____

Calculate the mass, in grams, of each of the following:

1. 2.00 moles of sodium
2. 5.00 moles of magnesium
3. 3.00 moles of aluminum
4. 3.05 moles of hydrogen
5. 0.50 moles of nitrogen
6. 2.02 moles of tungsten
7. 5.05 moles of potassium
8. 1.50 moles of calcium
9. 0.25 moles of chlorine
10. 6.08 moles of oxygen

Calculate the number of moles in each of the following:

11. 64.0 grams of oxygen
12. 210. grams of sodium
13. 250. grams of iron
14. 32.5 grams of sulfur
15. 10.0 grams of argon
16. 20.0 grams of calcium
17. 150. grams of zinc
18. 60.0 grams of gold
19. 80.0 grams of neon
20. 175 grams of silver

21. How many moles of silver are there in 3.01×10^{23} atoms of silver?
22. How many atoms of calcium are in 1.25 moles?
23. How many moles of nitrogen atoms are in 1.20×10^{25} atoms?
24. How many atoms of barium are in 7.25 moles of barium?
25. What is the mass, in grams, of 1.50×10^{23} atoms of calcium?
26. How many grams of magnesium are in 1.50×10^{12} atoms of magnesium?
27. Determine the number of grams in 3.01×10^{23} atoms of sodium.
28. Determine the number of atoms of mercury in 402.0 grams of it.
29. Determine the number of atoms of oxygen in 25.0 grams.
30. Determine the number of grams in 3.01×10^{23} atoms of sulfur.