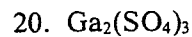
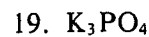
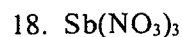
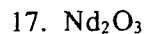
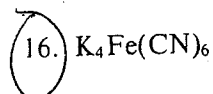
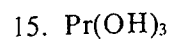
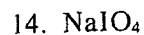
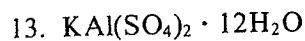
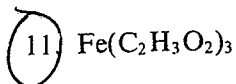
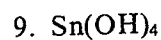
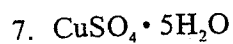
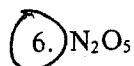
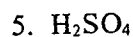
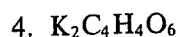
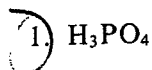


Molecular Weight and Mole Calculations

I. Find the molecular weight or formula weight for each of the compounds shown below:



21. zinc acetate

22. copper (I) sulfate

23. carbon dioxide

24. calcium bicarbonate

25. nitric acid

26. aluminum nitrate

27. ammonium sulfate

28. barium chloride dihydrate

29. ferrous phosphate

30. strontium hydroxide

31. sodium sulfite

32. magnesium nitride

(continued)

- | | |
|-----------------------|--------------------------|
| 33. hydrochloric acid | 37. copper (II) nitrate |
| 34. ferric sulfate | 38. magnesium bromide |
| 35. lead (II) bromide | 39. iron (III) hydroxide |
| 36. cesium chloride | 40. ammonium carbonate |

II. Express each of the following in grams.

- 1.0 mol of KBr
- 1.0 mol of CaCl_2
- 2.0 mol of AlF_3
- 0.50 mol of KNO_3
- 0.30 mol of NaHCO_3
- 0.25 mol of potassium iodate
- 0.10 mol of iron (III) carbonate
- 0.20 mol of sodium sulfate decahydrate
- 8.0 mol of sodium dihydrogen phosphate
- 0.30 mol of phosphorus pentachloride
- 1.50 mol of HCl
- 0.736 mol of H_2SO_4
- 0.042 mol of KOH
- 0.147 mol of NH_4OH
- 1.26×10^{-4} mol of $\text{HC}_2\text{H}_3\text{O}_2$

(continued)

16. 2.6 mol of lithium bromide
17. 0.395 mol of magnesium nitrate
18. 2.4×10^{-3} mol of sodium phosphate
19. 4.6×10^{-3} mol of ammonium chloride
20. 3.85×10^{-6} mol of lead (II) ions

III. Convert each of the following to its equivalent in moles.

1. 86.84 g of LiBr
2. 62.3 g of MgF_2
3. 17.1 g of H_2S
4. 302.7 g of ScCl_3
5. 8.5 g of PH_3
6. 33.4 g of KNO_3
7. 17.2 g of H_3PO_4
8. 38.1 g of FeCl_3
9. 15.9 g of $\text{Ca}(\text{NO}_3)_2$
10. 8.8 g of potassium carbonate
11. 5.0 g of ammonium sulfate
12. 2.5 g of copper (II) chloride
13. 30.0 g of tin (II) nitrate
14. 0.257 g of arsenic pentachloride

(continued)