Moles of Elements—Two-Step Problems (continued)

Exercises
Begin each problem by sketching a diagram that outlines the steps in the solution to the problem.

Convert to mass in grams.

1. 6.02×10^{23} atoms Ca

2. 1.204×10^{23} atoms Bi

3. 3.01×10^{23} atoms Ni

4. 1000 atoms Al

5. 1 atom Na

Convert to number of atoms.

6. 540 grams Al

7. 294 grams Au

8. 6.35 grams Cu

9. 2000 grams Mg

10. 1.00 gram Li

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

Moles of Compounds—Two-Step Problems (continued)

Exercises

Begin each problem by sketching a diagram that outlines the steps in the solution to the problem.

Convert to number of molecules.

  1. 72 grams HCl

  2. 9.0 grams H_2O

  3. 22 grams CO_2

  4. 500 grams NO

  5. 1.00 gram CCl_4

Convert to mass in grams.

  6. 6.02×10^{23} molecules Cl_2

  7. 3.01×10^{23} molecules SO_2

  8. 1.81×10^{24} molecules CO_2

  9. 1000 molecules H_2S

10. 1 molecule H_2O

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

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