## Answers to problems in page 311

## Answers to Practice Problems D

1.  $2.89 \times 10^{24}$  molecules BrF<sub>5</sub>

2.  $2.22 \times 10^{19}$  molecules Br<sub>2</sub>

## Homework

GENERAL

## Additional Practice

1. If 2.46 × 10<sup>25</sup> molecules of chlorine react completely, how many grams of NaCl will form?

$$2Na(s) + Cl_2(g) \rightarrow 2NaCl(s)$$

Ans.  $4.77 \times 10^3$  g NaCl

2. How many molecules of carbon dioxide are produced when 79.5 g of K<sub>2</sub>CO<sub>3</sub> decompose?

$$K_2CO_3(s) \rightarrow K_2O(s) + CO_2(g)$$

Ans.  $3.46 \times 10^{23}$  molecules CO<sub>2</sub>

3. How many water molecules form from the complete combustion of 1.129 × 10<sup>24</sup> molecules C<sub>4</sub>H<sub>10</sub>?

$$2C_4H_{10}(g) + 13O_2(g) \rightarrow 8CO_2(g) + 10H_2O(l)$$

Ans.  $5.645 \times 10^{24}$  molecules H<sub>2</sub>O

Logical