## Answers to Practice Problems D in page 311

## Answers to Practice

Problems D

1. $2.89 \times 10^{24}$ molecules $\mathrm{BrF}_{5}$
2. $2.22 \times 10^{19}$ molecules $\mathrm{Br}_{2}$

## Homework

## Additional Practice

1. If $2.46 \times 10^{25}$ molecules of chlorine react completely, how many
grams of NaCl will form?
$2 \mathrm{Na}(\mathrm{s})+\mathrm{Cl}_{2}(\mathrm{~g}) \rightarrow 2 \mathrm{NaCl}(\mathrm{s})$
Ans. $4.77 \times 10^{3} \mathrm{~g} \mathrm{NaCl}$
2. How many molecules of carbon dioxide are produced when 79.5 g of $\mathrm{K}_{2} \mathrm{CO}_{3}$ decompose?
$\mathrm{K}_{2} \mathrm{CO}_{3}(\mathrm{~s}) \rightarrow \mathrm{K}_{2} \mathrm{O}(\mathrm{s})+\mathrm{CO}_{2}(\mathrm{~g})$
Ans. $3.46 \times 10^{23}$ molecules $\mathrm{CO}_{2}$
3. How many water molecules
form from the complete combustion of $1.129 \times 10^{24}$ molccules $\mathrm{C}_{4} \mathrm{H}_{10}$ ?
$2 \mathrm{C}_{4} \mathrm{H}_{10}(\mathrm{~g})+13 \mathrm{O}_{2}(\mathrm{~g}) \rightarrow$ $8 \mathrm{CO}_{2}(\mathrm{~g})+10 \mathrm{H}_{2} \mathrm{O}(\mathrm{l})$
Ans. $5.645 \times 10^{24}$ molecules $\mathrm{H}_{2} \mathrm{O}$
LS Logical
