## Answers to problems 36, 37, page 331

**36. a.**  $1.34 \times 10^{24}$  molecules NO<sub>2</sub>

**b.**  $9.67 \times 10^{23}$  molecules NO

**c.**  $1.88 \times 10^{22}$  molecules  $O_2$ 

**37. a.**  $4.61 \times 10^{23}$  molecules H<sub>2</sub>

**b.**  $4.31 \times 10^{23}$  atoms Na

**c.**  $3.30 \times 10^{20}$  molecules H<sub>2</sub>