## Answers to problems in page 252-253.

- **42. a.** 127 g I<sub>2</sub>
  - b. 675 g PbS
  - c. 233 g C<sub>4</sub>H<sub>10</sub>
  - d. 103 g Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>
  - e. 35.4 g CuSO<sub>4</sub>
- 43. a. 58.44 g NaCl
  - **b.** 36.04 g H<sub>2</sub>O
  - c. 260 g Ca(OH)<sub>2</sub>
  - d. 163 g Ba(NO<sub>3</sub>)<sub>2</sub>
- **44.**  $3.24 \times 10^{22}$  atoms Au
- **45.**  $1.337 \times 10^{24}$  formula units  $ZnCl_2$
- **46.** 9.396 × 10<sup>21</sup> molecules naphthalene
- **47.**  $2.79 \times 10^{24}$  atoms Al
- **48.** 5.53 mol H<sub>2</sub>O
- **49.** a.  $4.99 \times 10^{-2} \text{ mol } (NH_4)_2 SO_4$ 
  - b. 61 mol Ca(OH)<sub>2</sub>
  - **c.**  $7.49 \times 10^{-2} \text{ mol H}_2\text{SO}_4$