

Solutions

Each answer shows the steps, then the **result**.

2.1

- $n = m/M = 44/44 = 1 \text{ mol}$

2.2

- $2(1) + 16 = 18 \text{ g/mol}$

2.3

- $m = nM = 3 \times 12 = 36 \text{ g}$

2.4

- 6.022×10^{23}

3.1 B

- a mole is Avogadro's number of particles

3.2 B

- $12 + 2(16) = 44 \text{ g/mol}$

3.3

(a)

- $n = 88/44 = 2 \text{ mol}$

(b)

- $2 \times 6.022 \times 10^{23} = 1.2 \times 10^{24} \text{ molecules}$

3.4

(a)

- $m = nM = 0.5 \times 58.5 = 29.25 \text{ g}$

(b)

- g/mol (grams per mole)