

Solutions

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

2.1

- the average mass of an element's atoms (over its isotopes) compared with $\frac{1}{12}$ of a carbon-12 atom

2.2

- $40 + 12 + 3(16) = 100$

3.1 B

- It is a weighted average of ^{35}Cl and ^{37}Cl

3.2 C

- $24 + 2(16 + 1) = 24 + 34 = 58$

3.3

(a)

- $A_r = \frac{(24 \times 79) + (25 \times 10) + (26 \times 11)}{100} = \frac{2432}{100} = 24.3$

(b)

- it is a weighted average of isotopes of different mass

3.4

- $2(12) + 6(1) + 16 = 24 + 6 + 16 = 46$