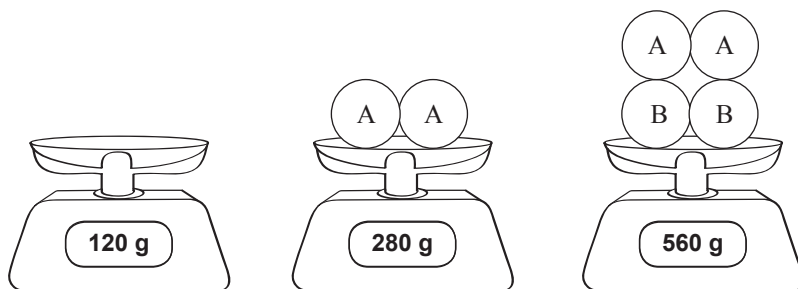


Solve Mass Problems

Example



- (a) Find the mass of object A.
- (b) Find the mass of object B.

Solution: Use *Method of Elimination*

$$\textcircled{A} + \textcircled{A} \rightarrow (280 - 120) \text{ g} = 160 \text{ g}$$

We have eliminated the mass of the container.

$$\textcircled{A} \rightarrow 160 \text{ g} \div 2 = 80 \text{ g}$$

$$\textcircled{B} + \textcircled{B} \rightarrow (560 - 280) \text{ g} = 280 \text{ g}$$

We have eliminated the masses of the container and two objects A.

$$\textcircled{B} \rightarrow 280 \text{ g} \div 2 = 140 \text{ g}$$

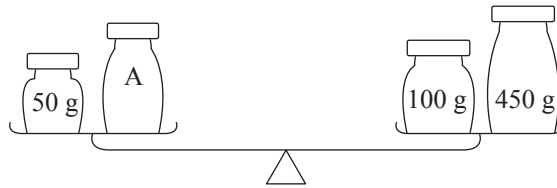
- (a) 80 g
- (b) 140 g

Comments

The common methods to solve mass problems are

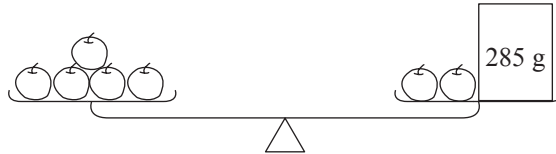
- (i) Method of Elimination
- (ii) Method of Comparison
- (iii) Model Method

1 What is the mass of the bottle A?



Ans: _____ g

2 The apples shown below have the same mass.
Find the mass of each apple.



Ans: _____ g

$$\begin{aligned}
 2 \quad & 3 \text{ apples} \rightarrow 285 \text{ g} \\
 & 1 \text{ apple} \rightarrow 285 \div 3 \\
 & = 95 \text{ g}
 \end{aligned}$$

$$\begin{aligned}
 1 \quad & (100 + 450) \text{ g} = 550 \text{ g} \\
 & A = (550 - 50) \text{ g} \\
 & = 500 \text{ g}
 \end{aligned}$$

Answers: