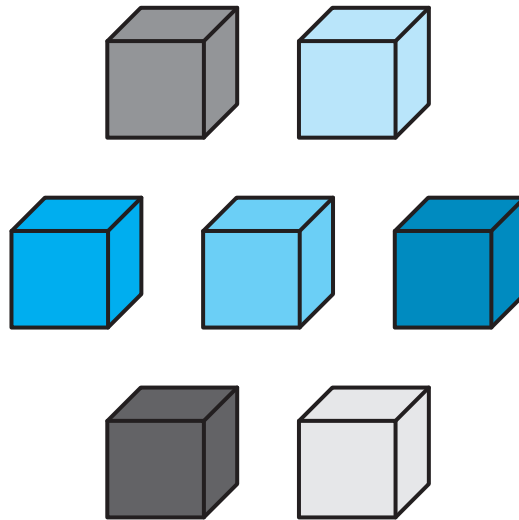


Work In Units

WIU Introduction



In **Work In Units (WIU)**, the aim is to work with the starting amount(s) in units.

Tip: Since we do not know the exact amount(s) at first, working with units allows us to start solving the question from the beginning.

WIU Example

The ratio of A's cookies to B's cookies is 1 : 3.

B has 10 more cookies than A.

How many cookies do A and B have?

A → 1 unit

B → 3 units

More (B than A) → $3 - 1 = 2$ units
→ 10 cookies

2 units → 10 cookies

1 unit → $10 \div 2 = 5$ cookies

Total → $1 + 3 = 4$ units

→ $4 \times 5 = 20$ cookies

Ans: 20 cookies

Adapted:

Score A* in Singapore Mathematics Problem Sums Level 5 (Standard Edition)

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Question 1

A had a sum of money. A spent all her money on 5 boxes of chocolate cookies and 3 boxes of strawberry cookies. If A bought 3 boxes of chocolate cookies and 5 boxes of strawberry cookies instead, she would have \$480 left. If a box of chocolate cookies cost 4 times as much as a box of strawberry cookies, how much money did A have at first?

Ans: _____

Question 2

A spent \$561 on 3 boxes of chocolate cookies and 2 boxes of strawberry cookies. Each box of chocolate cookies cost $\frac{3}{4}$ as much as a box of strawberry cookies. How much would A spend on 18 boxes of chocolate cookies and 12 boxes of strawberry cookies?

Ans: _____

Question 1

1 chocolate \rightarrow 4 units
 5 chocolate $\rightarrow 5 \times 4 = 20$ units
 Spent (at first) $\rightarrow 20 + 3 = 23$ units

1 strawberry \rightarrow 1 unit
 3 strawberry $\rightarrow 3 \times 1 = 3$ units

3 chocolate $\rightarrow 3 \times 4 = 12$ units
 Spent (end) $\rightarrow 12 + 5 = 17$ units

5 strawberry $\rightarrow 5 \times 1 = 5$ units

23 units = 17 units + \$480
 23 units $-$ 17 units = \$480
 6 units \rightarrow \$480
 1 unit \rightarrow \$480 \div 6 = \$80
 23 units $\rightarrow 23 \times$ \$80 = \$1840
 A \rightarrow \$1840

Ans: \$1840

Question 2

1 chocolate \rightarrow 3 units
 3 chocolate $\rightarrow 3 \times 3 = 9$ units

1 strawberry \rightarrow 4 units
 2 strawberry $\rightarrow 2 \times 4 = 8$ units

Spent $\rightarrow 9 + 8 = 17$ units
 \rightarrow \$561

17 units \rightarrow \$561
 1 unit \rightarrow \$561 \div 17 = \$33
 3 units $\rightarrow 3 \times$ \$33 = \$99

1 chocolate \rightarrow \$99
 4 units $\rightarrow 4 \times$ \$33 = \$132
 1 strawberry \rightarrow \$132
 18 chocolate $\rightarrow 18 \times$ \$99 = \$1782
 12 strawberry $\rightarrow 12 \times$ \$132 = \$1584
 Spent \rightarrow \$1782 + \$1584 = \$3366

Ans: \$3366