

# Unit Transfer Method

## Primary 5

Before & After

Lesson 2: Total Unchanged

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## LESSON 2: TOTAL UNCHANGED QUANTITIES

### DEFINITION

The **total quantity** remains unchanged.

Before:            Ali has \$10 and Ben has \$35.

Change: Ali gives \$3 to Ben.

After:            Does their Total money Before and After changes?            (Yes / No)

	Ali	Ben	Total
Before			
Change			
After			

Conclusion:

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**GUIDED EXAMPLE 1**

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There was 250 g of flour in Container A and 800 g of flour in Container B.  
How much flour must be poured from Container B into Container A  
so that both containers had the same amount of flour?

**GUIDED EXAMPLE 2**

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Wendy had  $\frac{2}{3}$  as many stickers as Sharon.  
After Wendy gave 56 stickers to Sharon,  
Wendy had  $\frac{2}{5}$  as many stickers as Sharon.  
How many stickers did Wendy have at first?

**GUIDED EXAMPLE 3**

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Wahid and Aron had a total of 1760 marbles.  
When Wahid gave 120 marbles to Aron,  
he would have 3 times as many marbles as Aron.  
How many marbles did Wahid have at first?

**GUIDED EXAMPLE 4**

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Herman and Andy collected some coins.

Andy collected 25% more coins than Herman.

If Herman gives 26 coins to Andy,

he will have  $\frac{1}{2}$  as many coins as Andy in the end.

How many coins did Andy have at first?

**GUIDED EXAMPLE 5**

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John and Sean had the same amount of money at first.

If John gives \$94 to Sean,

the ratio of John's money to Sean's money became 7 : 11.

How much money did they have altogether?



**GUIDED EXAMPLE 6**

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Mr. Ong had a total number of 576 toys in both shops.

He transferred 90 toys from second shop to first shop.

As a result, there was 8 times as many toys in the first shop as the second shop.

How many toys were there in the first shop at first?

**BUILD YOUR UNDERSTANDING**

1. Ryan had \$324 and Kenneth had \$1076.  
How much money must Kenneth give to Ryan so that they would have an equal amount of money in the end?

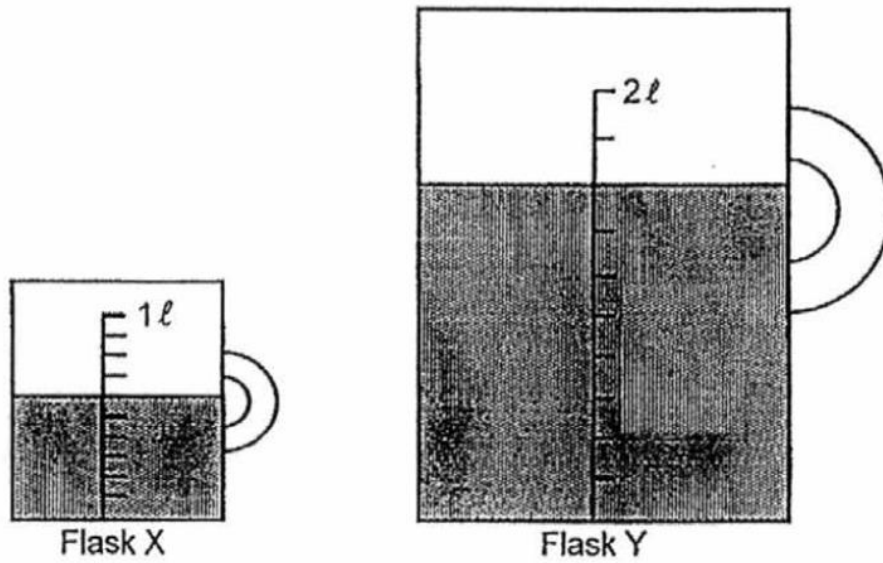
2. A carton contained peaches and oranges in the ratio 9 : 4.  
The shopkeeper sold 60 peaches in the carton.  
He then added 60 oranges to the carton.  
As a result, there was an equal number of peaches and oranges in the carton.  
How many peaches were left in the carton?

3. Tank A and Tank B had 10.8 litres of water.  
After 1.045 litres of water was poured from Tank A to Tank B,  
Tank A had three times as much water as Tank B.  
How much water was in Tank A at first?

4. The number of people in Camp A is  $\frac{3}{7}$  that of Camp B.  
After 30 people moved from Camp A to Camp B,  
the number of people in Camp A is 40% that of Camp B.  
Find the total number of people attending both camps.

5. Lucas and Dinesh had some marbles.  
The ratio of Lucas's marbles to Dinesh's was 5 : 3.  
After Lucas gave half of his marbles to Dinesh,  
Dinesh then had 36 marbles more than Lucas.  
How many marbles did they have altogether?

6. At first, Flask X and Flask Y contained water as shown below:



Some water from Flask Y was poured into Flask X with no water spilling over. In the end, there was as much water in Flask X as in Flask Y. How much water was poured from Flask Y into Flask X?