

Concept : Ratio Word Problems (Unchanged total)

Kamal and Norman had sweets in the ratio of 5:7.
 After Kamal gave Norman 21 of his sweets, the ratio became 1:5.
 How many sweets did Kamal have at first?

1) Using the “Before-Change-After” table to help you organise your information, this is how the table will look like at first:

	Kamal	Norman	Total
Before	5u	7u	12u
Change	- 21 sweets	+ 21 sweets	
After	1u	5u	6u

2) Then we make the before & after total ratio to be the same by multiplying:

	Kamal	Norman	Total
Before	5u	7u	12u
Change	- 21 sweets	+ 21 sweets	
After	$1u \times 2 = 2u$	$5u \times 2 = 10u$	$6u \times 2 = 12u$

After you’ve made the **total** of the before & after ratio the same, we can start solving the question.

At first, Norman had 7 units. But after he get 21 sweets from Kamal, he had 10 units. So, how many units represents the 21 sweets he got from Kamal?

(Ans : 3 units represents the 21 sweets)

3 units \rightarrow 21 sweets

1 unit $\rightarrow 21 \div 3 = 7$ sweets

5 units $\rightarrow 7 \times 5 = 35$ sweets

Ans : 35 sweets