

Concept : Ratio Word Problems (1 quantity unchanged)

Ali and Ahmad had marbles in the ratio of 4:7.
 During a match, Ahmad loses some marbles and their marbles became a ratio of 2:3.
 How many marbles did Ali 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:

	Ali	Ahmad
Before	4u	7u
Change		(15 marbles)
After	2u	3u

2) Then we make Ali's ratio to be the same by multiplying:

	Ali	Ahmad
Before	4u	7u
Change		(15 marbles)
After	$2u \times 2 = 4u$	$3u \times 2 = 6u$

After you've made Ali's ratio before & after the same, we can start solving the question.

At first, Ahmad had 7 units. But after he loses 15 marbles, he only had 6 units. So, how many units represents the 15 marbles he lost? (Ans : 1 unit represents the 15 marbles)

1 unit \rightarrow 15 marbles

4 units $\rightarrow 15 \times 4 = 20$ marbles

Ans : 20 marbles