

ANSWER

To the right, we have the image of the problem presented in the video.

The problem is that: $1/2 + 1/3 + 1/9$ doesn't add up to 1. It adds up to $17/18$ which means that $1/18$ of the 17 horses were not distributed to anyone.

$1/18$ times 17 =(approx.) 0.94 horses

The youngest brother realized it and that is why he offered his horse to solve the problem.

Now, there were 18 horses but, still, $1/18$ of the inheritance, which now is 1 instead of 0.94, was not distributed to anyone. So, the youngest brother recovered his horse and everyone got more horses than they were getting originally.

THE INHERITANCE

Three brothers inherited 17 horses to be distributed like this:

$1/2$ for the eldest: 8.5 horses
 $1/3$ for the second: 5.6... horses
 $1/9$ for the youngest: 1.8... horses

The youngest brother said: "I have a horse that I am going to add to the inheritance to solve this problem". Now, they had 18 horses

$1/2$ for the eldest: 9 horses
 $1/3$ for the second: 6 horses
 $1/9$ for the youngest: 2 horses
TOTAL: 17 horses

Everyone received more than before and the youngest son recovered the horse that he lent.

HOW IS THAT POSSIBLE?