

Puzzle – 07

<https://youtu.be/mfzCTTYqv-M>

Q- Luxury Cars Interview Puzzle

A father wants to divide his 17 luxury cars among his three sons. According to the father, the oldest son should get half of the luxury cars, the middle son should get one third of the luxury cars and the youngest son should get one ninth of the luxury cars. When the father died, his sons were not able to divide the luxury cars as the result was coming in fractions. As the sons were fighting on how to divide the luxury cars, a traveling mathematician driving by his luxury car came and heard their problem. He proposed a solution with which all the sons got their share in the property without destroying any car. What was the advice given by the traveling mathematician and how the group of luxury cars was divided?

My Approach and Solution –

Let's say that there is no mathematicians and the person have to divide. The car is among them says let's see how that will result :

Oldest Son – $17 / 2$ Cars = 8.5 Cars

Middle Son – $17 / 3$ Cars = 5.66 Cars

Youngest Son – $17 / 9$ Cars = 1.88 cars

But this is not possible as this would destroy the cars and the cars would not be distributed as intended by the old man. So, what should we do?

It is given in the question that the mathematician also owns a luxury car so what he does is he adds his cars into the group of 17 luxury cars, thereby making the total to be 18. Now when the distribution is done, it will be like :

Oldest Son – $18 / 2$ Cars = 9 Cars

Middle Son – $18 / 3$ Cars = 6 Cars

Youngest Son – $18 / 9$ Cars = 2 cars

Total = $9 + 6 + 2 = 17$

Here, the total comes out to be 17 and thereby the 17 luxury cars by the old man and distributed among his sons and then the mathematician takes his luxury car and leaves.