

The ages of a father and son add up to 55.

The father's age is the reverse of the digits in the son's age. How old is the Father?

Suppose the father's age is 'AB', that is,  $10A + B$ .

Then the son's age is 'BA', that is,  $10B + A$ .

We have

$$\begin{aligned}10A + B + 10B + A &= 11A + 11B \\ &= 11(A + B)\end{aligned}$$

Now  $11(A+B) = 55 \Rightarrow A+B = 5$

Since the father is older than the son, we need

$$A > B.$$

<u>A</u>	<u>B</u>	
5	0	x son's age would have leading 0
4	1	
3	2	x unrealistic: father = 32, son = 23

So the Father is 41