

November 23rd

If Peter gets 97% on the next maths test, his average will be 90%. If he gets 73%, his average will be 87%.

How many tests has Peter already taken?



If his current total is x after n tests

$$\frac{x + 97}{n + 1} = 90 \quad (1)$$

$$\frac{x + 73}{n + 1} = 87 \quad (2)$$

(1) gives $x + 97 = 90n + 90$

Giving $x = 90n - 7$

Substituting into (2) gives

$$\frac{90n - 7 + 73}{n + 1} = 87$$

Hence $90n + 66 = 87n + 87$

Leaving $n = 7$

Peter has taken 7 tests