

CORRESPONDENCE.

SOLUTION OF PROBLEM PROPOSED BY JUVENIS.

To the Editor of the Assurance Magazine.

SIR,—Referring to the question proposed by Juvenis, in the April Number of the *Magazine*, I send the particulars of the method which I adopted to find an approximate solution.

The question is, if I understand it correctly, “What is the value of a perpetuity to be enjoyed by 48, in the event of 55, 53, 51, and 50, all dying before him; the first payment to be made at the end of the year in which the *last* of these four lives should fail?”

The value of this perpetuity, at 4 per cent, will be equal to an assurance of £26, payable if 55, 53, 51, and 50, should all die before 48. In order to simplify the solution, I substituted a single life, corresponding to the value of an annuity on the *longest* of the four lives, and found the value of an assurance payable if the single life, thus obtained, should die before 48. The value was, at 4 per cent. and using the Carlisle tables, 3·7752 years' purchase of the rental of the estate.

There are, however, many things which would have an important bearing on this value; for instance, the state of 48's health and of that of the other lives, whether they are related to each other by blood, &c.; in short, actuaries would, in stating a value, be guided more by their own judgment than by any tabular or mathematical value, which can only, without great trouble, be approximate. If 48 were selling his interest, it is quite probable that he would only realise two years' purchase for it.

I am, Sir,

Yours obediently,
T. M.

THE SAME SUBJECT.

To the Editor of the Assurance Magazine.

SIR,—The suggestion made by Juvenis in the last April Number of our *Journal* is one which I, and I believe many others engaged in our pursuits, would be glad to see extensively acted upon.

The estimates of actuaries are now constantly made the subjects of discussion in courts of law and equity and before other tribunals; and the great difference of opinion which they so frequently exhibit becomes conspicuous, and tends to bring such estimates into doubt and general discredit. Any process, therefore, which will serve to bring this want of agreement