28th February, 1959.

My dear Frank,

It was nice to see you on Thursday and I am writing because * of a little problem which might interest your electronic computor which is this:

If $\Delta_3(x)$ stands for the sum of the series from 1 to ∞ of $1/(n+x)^3$, then for some value of x, $x\Delta_3(x)$ is the maximum. Indeed it is easily seen that at this point

$$\Delta_3(x) = 3x\Delta_4(x).$$

The solution of this equation is pretty near to x = .6614, but my calculations leave me in doubt and difficulty about what comes next; i.e. I must have made some small slip which would take, however, a great deal of work to find. Do you think your 'giant brain' can do anything?

Sincerely yours,

*[See Statistical Methods and Scientific Inference, p. 131] - JHB

Dr F. Yates, F.R.S.