

IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY.

(ROYAL COLLEGE OF SCIENCE.)

SOUTH KENSINGTON,

LONDON, S.W.7.

May 14th. 1935.

Dear Professor Fisher,

I have found your letter concerning the calculation of the number of empty quadrats to be found in a square of 25 quadrats, when 's' is the number of individuals per large square.

The mean number of empty quadrats is

$25 \left(\frac{24}{25}\right)^s$  and the variance you give in that letter is:-

$$25 \left\{ 24 \left(\frac{23}{25}\right)^s - 25 \left(\frac{25}{24}\right)^{2s} + \left(\frac{24}{25}\right)^s \right\} \quad \frac{24}{25}$$

This expression gives negative values, and since I do not understand how it has been derived I cannot tell whether the slip is due to a minus in the wrong place or to some other cause. I'm afraid, too, I cannot see the resemblance between this expression and the one you worked out for me at Cambridge.

I shall be very grateful if you can tell me where the slip is in the above formula; and if the way in which it is derived is within the narrow limits of my mathematics, I should like to know how it has been done. If you can spare me any time on Friday (preferably early in the afternoon) I shall come along to get the answer to this note.

Again with many thanks for your trouble and interest.

yours sincerely,

Eric Ashby.

Can you 'phone Kensington 4861  
if you're able to see me.