Dear Dr Sloane

Letter 1 of 2

May 22 1991.   2024

'Eureka' :: 'Qarch':: Cambridge Mathematical Society,

I use your 'Handbook of Integer Sequences' frequently, the latest instance being in the solving of E3435 (Am.Math.Mthly)04/91.
An usher seats n patrons, one at a time, in the first row of a theater with n very narrow chairs. Whenever a new patron is seated, anyone in a chair adjacent to his must briefly stand, as well as those in chairs adjacent to those who stand, and so on.
For example if n=5, the usher might start by seating people in chairs 1,3,5.
If he then fills chair 2, the patrons in chairs 1 & 3 must arise and sit down again.
The last patron must be assigned chair 4, and the four previous patrons will have to arise and sit down again. The usher would like to seat people so as to minimize the total number of times one sits down, which in our example is $1+1+1+3+5 = 11$.
Let $f(n)$ be the minimum total number of times someone sits down in filling the row,
For example $f(4)=8$, $f(5)=11$. Find $(f(100))$."

My method in obtaining an answer was to see that the sequence of the difference between $(f(1))$, $f(2)$, $f(3)$ ..... is #89 in your book, i.e. 1,2,2,3,3,3 .....
:

I have a letter of yours of 1981, whereby you noted the difficulty in obtaining a subscription to 'Eureka' (magazine) and ('Qarch(problems newsletter)' issued by The Cambridge Mathematical Society, England.
I too have had considerable difficulty with them.

Letter 2 of 2

To show my appreciation of your book, a nd the pleasure and instruction I have had from using it., I am sending separately, all the issues of 'Qarch' to date, and all of the ''problems' drive'' from 'Eureka' (with solutions) from 1974 to the current issue(1990). [There are several years when there were no sequence problems].

After considerable correspondence, including two registered letters, my issues of 'Qarch' & 'Eurkea' are up to date, (see enclosed letter from Ms. Erskine), but I don't yet know the current subscription cost, and what my credit standing is.

So what I will do, is when the current issues of 'Q' & 'E' are received, I will send you a copy of 'Qarch', and the problems drive from 'Eureka', and continue to do this yearly, unless advised otherwise.

With very best wishes,

Leslie Upton

P.S In 'Qarch 10' there could be a page missing, but I was so pleased to receive the issues sent, I dont want to query Ms Erskine about it.
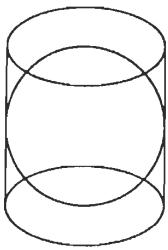
The Archimedeans

(Cambridge University Mathematical Society)

Publishers of 'Eureka' and 'QARCH'

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3 April 1991

Dear Mr Upton

Subscription to EUREKA and QARCH

May I begin by expressing sincere apologies, on behalf of the Archimedeans, for the lack of correspondence to you regarding past copies of the above publications. I have just taken over as the new Business Manager for 1991/92 and am now endeavouring to clear the backlog of mail left to me by my predecessors. I am extremely sorry that it has caused you so much inconvenience.

However, I now have great pleasure in enclosing photocopies of Numbers 18, 20, & 21 of Eureka, and of Numbers 9, 10, & 11 of Qarch, which I hope you will enjoy reading. The latest edition of Eureka (No. 51) is about to go to the printers, and Qarch No. 12 is also yet to be printed. As soon as they are ready I shall make sure that you receive copies as promptly as possible.

Apologies once again, for the appalling way in which your mail has been dealt with thus far. I hope that you will not have any further problems with your continuing subscription to Eureka and Qarch, and that you will enjoy any future copies that you may receive.

Yours sincerely

Rosie Erskine

Rosie Erskine
Business Manager