

To the Editor of the *Mathematical Gazette*
Calendar Reform

DEAR SIR,—In a letter in your issue of December, 1961, I admitted with regret my failure to locate a passage in Gibbon's *Decline and Fall* in which the historian underestimated the accuracy of the *Persian Calendar*, describing it as a little *less* accurate than the Gregorian (which we use in Europe now), though it is really a little *more* accurate.

I am greatly indebted to Mr. Richard Beetham, of Harrogate, for finding the quotation on the very day on which the Gazette reached me, and sending the reference to me at once.

Two-thirds of the way through Chapter 57, just before the death of Malek Shah in 1092, we read that under this Turkish conqueror Persian culture revived. "The sultan bestowed a more serious and learned care on the reformation of the calendar, which was effected by a general assembly of the astronomers of the East. By a law of the prophet the Moslems are confined to the irregular course of the lunar months; in Persia, since the age of Zoroaster, the revolution of the sun has been known and celebrated as an annual festival; but after the fall of the Magian empire, the intercalation had been neglected; the fractions of minutes and hours were multiplied into days; and the date of the spring was removed from the sign of Aries to that of Pisces. The reign of Malek was illustrated by the *Gelalaeen* aera; and all errors, either past or future were corrected by a computation of time, which surpasses the Julian and approaches the accuracy of the Gregorian, style."

Yours, W. HOPE-JONES

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Shamley Green,
Guildford.

P.S. Later I have had the same news from Mr. F. G. Gordon, of Tunbridge Wells, who adds this quotation from Omar Khayyam.

Ay, but my calculations, people say,
Reduced the year to better reckoning: nay,
It was but striking from the calendar
Unborn tomorrow & dead yesterday.

W. H.-J.

To the Editor of the *Mathematical Gazette*

DEAR SIR,—Referring to Note 2978, an article appeared in *Machinery* dated 3rd October, 1946, entitled *The Rectification and Squaring of the Circle by the Riga Square*, by H. K. Barton. This article states that the Riga Square was devised by Mr. E. Bing of the Russian-Baltic Waggon Works at Riga. It is similar to a 30-deg. set-square except that the perpendicular and base are 23 and 44 units respectively giving an approximation to the angle $27^{\circ} 35' 49.6''$ whose cosine is $\frac{1}{2}\sqrt{\pi}$. The article explains methods of finding the area and circumference of a circle of known diameter, or of finding the diameter when either the

area or circumference is given. The square may also be used to find the area of an ellipse.

Yours faithfully, G. B. GRAVE

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To the Editor of the *Mathematical Gazette*
Mathematics begins with Inequality

Dear SIR,—The statement of R. C. H. Tanner that “even the most rudimentary language contains comparatives” does not appear to be true. The Bantu languages of Africa are conspicuously lacking in comparatives and superlatives. Clumsy verbal constructions are necessary for comparison. In the local language, Luganda, the usual verb is a metaphor from beating someone in a contest or winning a court case. One thing is bigger than another if it “beats it in size”, and it is biggest of a group if it “wins completely in size”. If it is absolutely clear that you are talking about size, you could talk about one number “beating” another, but if you want to be clear about sentences such as “12 children are *more than 5*”, and “5 children are *better than 12*”, you would have to use the full construction.

On the other hand, there are straightforward concepts approximating to “equals”, “add” (or “marry”), “take”, “share”, “count”, etc

Yours truly, ARTHUR FRENCH

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To the Editor of the *Mathematical Gazette*

DEAR SIR,—Whilst strenuously upholding the freedom, indeed the duty, of a reviewer to say what he believes I feel that your recent review of the O.E.E.C. publications on school mathematics should not pass without comment. The working parties which were gathered together were composed of authorities from many countries whose qualifications it would be hard to surpass, and bearing in mind the international standing of this journal it would be a pity if readers in Europe thought that teachers in England accept the criticisms made by your reviewer without dissent. Far from agreeing that the proposals are “extreme and eccentric” a number of us believe that they are the most important guide to teaching policy in mathematics to be published in recent years, and that they indicate the general direction which needed reforms should take. We cannot see that their main purpose is only to advance the starting point of the University course, rather we think they should be used to enrich the mathematical life of the majority of pupils. Agreement in principle, of course, does not imply support for every detail.

It is true that many English readers will find insufficient reasons for some of the specific topics which they propose to include in future syllabuses, but it is untrue that these topics merely reflect the research