

inertia and that if it cannot be so replaced it is not being used scientifically but in one of its popular senses.

To turn to the later part of Mr. Grattan-Guinness' article. His suggestions of "lig" and "tug" are most attractive but unfortunately most unpractical, for it is extraordinarily difficult to get people to adopt these pet names. Teachers love the pet names which they invent themselves, but regard as undignified and unscientific those which other people invent. I was brought up on "velo" and "celo" and still think they have advantages over "ft./sec." and "ft./sec.²" but I fear that "velo" and "celo" are dead. "Slug" survives in use by aircraft designers and that it does so speaks volumes for the forceful personality of its inventor or backer, Professor Perry, but the mere name "slug" has prevented generations of teachers from using the British engineer's unit of mass at all. If Mr. Grattan-Guinness or anyone else other than a dictator can introduce "lig" and "tug", good luck to him. He might begin by trying to get strong resolutions in favour of the idea from the various boards controlling the larger certificate examinations.

Yours truly,

C. O. TUCKEY.

THE NEED FOR REFORM IN THE TEACHING OF MATHEMATICS.

To the Editor of the *Mathematical Gazette*.

DEAR SIR,—I hope I may be afforded a little space for some remarks on Mr. Dockeray's article in the October *Gazette*. He gave admirable expression to my own misgivings about the status of mathematics in the schools. Quite apart from any future change in our economic system, envisaged by Mr. Dockeray, the present standing of the subject cannot be regarded as satisfactory.

In the first place, it is a fact that in the Sixth Forms of a large number of schools, mathematics, as a cultural subject, has little chance of existence because the only boys taking it are members of the Science Sixth, who all do physics or chemistry as well. No facilities exist for the mathematical specialist and in these circumstances, mathematics is mainly regarded as a necessary adjunct to the science subjects. As quite a few promising mathematicians are not at all attracted by the chemistry laboratory, they inevitably turn to arts subjects.

Also I cannot help feeling that, in the early stages, some of the modern methods of teaching geometry (for example, construction of models), unless very carefully employed by expert teachers of mathematics, tend to give the subject a materialistic bias from the outset. In trying to widen the appeal of the subject, are we not in danger of diminishing its aesthetic value?

Yours truly,

E. JOHNSON.

REFERENCE FOR SIMILAR TRIANGLES.

To the Editor of the *Mathematical Gazette*.

SIR,—The notation for references for similar triangles which Mr. Tuckey suggests on p. 486 of the December *Gazette* seems to me very artificial and entirely unnecessary. A.A.A., S.A.S., S.S.S. are quite enough without bracketing an S. (If he brackets one S, why does he not bracket every S?) There is no danger of confusing congruence and similarity. S.A.S. means only that we have used two sides and the included angle; whether it is for congruence or for similarity is clearly stated in the line at the end of which the S.A.S. is written.

Thus if two triangles RST , XYZ have been proved congruent by using the three-side case of congruence, the last line appears thus :

$$\triangle RST \equiv \triangle XYZ. \quad (\text{S.S.S.})$$

If the triangles have $RS/XY = ST/YZ = TR/ZX$, the last line is

$$\triangle RST \text{ and } \triangle XYZ \text{ are similar.} \quad (\text{S.S.S.})$$

In the same way, in

$$\triangle RST \equiv \triangle XYZ \quad (\text{S.A.S.})$$

and

$$\triangle RST \text{ and } \triangle XYZ \text{ are similar.} \quad (\text{S.A.S.})$$

S.A.S. is quite clear, and there is no possibility of doubt whether we are dealing with congruent or similar triangles. Again, “ $\triangle RST$ and $\triangle XYZ$ are similar (A.A.A.)” is perfectly clear.

What would be very useful would be some accepted symbol for “is similar to”

Yours truly,

A. W. SIDDONS.

To the Editor of the *Mathematical Gazette*.

SIR,—I am fully in agreement with Mr. Tuckey's letter in the December *Gazette*. My own reference symbols, however, are :

for congruence

S A S

A S A

A A S

S S S

R S S

A S S (ambiguous)

for similarity

S A S :

A A :

S S S :

The sign for ratio (:) stands out more clearly if no full stops are used, so that we write

S A S, not S.A.S.,

S A S :, not S.A.S. :

Yours truly,

L. LINES.

ON A REVIEW

To the Editor of the *Mathematical Gazette*.

DEAR SIR,—We note in the review of our *Modern School Arithmetic* in the December *Gazette* the statement :

“In spite of this attention to the degree of accuracy, the authors obtain on p. 210 by the use of four-figure logarithm tables £115 15s. 3d. as the amount of £100 in 3 years at 5% compound interest.”

This statement is quite untrue. In fact, we say on p. 210 :

“ $\log A = \log 100 + 3 \log 1.05$.

Using four-figure tables $A = \text{£}115.8$.

Amount = £115 16s.

By direct calculation without logs, $A = \text{£}115 15s. 3d.$; and we go on to point out that seven-figure tables would be necessary for practical calculation of interests by this method.

With regard to the remark that the mil method of decimalising money to three places is given without warning of a lurking danger, we would refer