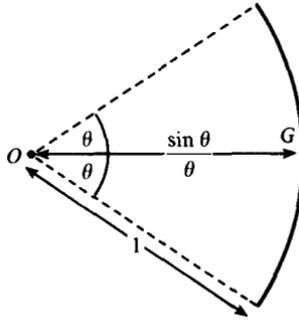


Correspondence

The centroid of an arc of wire

DEAR EDITOR,

The fact that the centroid G of the circular arc of wire illustrated below is distance $\sin \theta/\theta$ from the centre O of



the circle is a nice physical illustration of the fact that $\sin \theta/\theta \rightarrow 1$ as $\theta \rightarrow 0$ (see note 73.3 in the March 1989 edition). However to use this fact to deduce the limit is circular (no pun intended). For the proof that $OG = \sin \theta/\theta$ depends upon the fact that

$$\int \cos \theta d\theta = \sin \theta \quad \text{or} \quad \frac{d}{d\theta} \sin \theta = \cos \theta$$

which in turn depends upon the fact that

$$\lim_{\theta \rightarrow 0} \frac{\sin \theta}{\theta} = 1!$$

Yours sincerely,
PHILIP MAHER

Middlesex Polytechnic, Trent Park, Barnet, Herts EN4 0PT

Reviews

Readers may have noticed the change of editorship of the *Reviews* section. Over the last few months there has been a transition from John Baylis to the new review editor, Nick Lord of Tonbridge school.

John Baylis organised the book reviews efficiently and well for six years. There is an enormous amount of administrative work involved but I know that John thoroughly enjoyed it and especially the contact it brought him with many readers. I thank him wholeheartedly for all his efforts and wish Nick Lord every success in the job.

VICTOR BRYANT

Mathematics through art and design, 6–13, by Anne Woodman and Eric Albany. Pp 122. £12.95. 1988. ISBN 0-7135-2839-7 (Unwin Hyman)

This book appeared in our staff room long before my review copy arrived; and not just a single staff copy, everyone seemed to be studying copies of their own: I felt quite left out!

Their appearance coincided with the "Chrismaths" theme which was to be central to the school decorations. However when my copy duly appeared I was able to stop peering over