# MATHEMATICAL <br> Notes 

A Review of Elementary Mathematics and Science

EDINBURGH
MATHEMATICAL SOCIETY

## Edinburgb:

## Printed for the Edinburgh Mathematical Society by <br> LINDSAY \& CO., I 7 Blackfriars Street. 1916.

## CONTENTS.

$\qquad$
PAGE

$$
\begin{aligned}
& \text { Experimental Determination of the Fundamental Solutions } \\
& \text { of the Equation } a \cos \theta+b \sin \theta=c \text {, with some general } \\
& \text { theorems on that Equation } \\
& \text { J. M'Whan, M.A., Ph. D. } \\
& \text { On the Direction-Cosines of the Axes of the Conicoid } \\
& f(x y z) \equiv a x^{2}+b y^{2}+c z^{2}+2 f y z+2 g z x+2 h x y=1 \\
& \text { R.J. T. BELL, M.A., D.Sc., F.R.S.E. } \\
& \text { A Method of obtaining Examples on the Multiplication of } \\
& \text { Determinants - } \\
& \text { Thomas M. MACROBERT, M.A., B.Sc. }
\end{aligned}
$$

The Limits of $\left(\cos \frac{x}{n}\right)^{n}$ and $\left(\sin \frac{x}{n} / \frac{x}{n}\right)^{n}$ when $n$ tends to infinity ..... 233
Professor G. A. Gibson, M.A., LL.D., F.R.S.E.
Centre of Curvature ..... 235
R. F. Muirhead, B.A., D.Sc.
Geometrical Proof that $\tan x \tan y+\tan y \tan z+\tan z \tan x=\mathrm{I}$ when $x+y+z=90^{\circ}$ ..... 237
G. E. Crawford, M.A.


#### Abstract

Owing to the absence of the Editor on military duty, all contributions and communications referring to "Mathematical Notes" should be addressed to the Hon. Secretary, 19 Craighouse Terrace, Edinburgh.


The Annual Subscription to the Edinburgh Mathematical Society is 7s. 6d. for ordinary members, who receive copies of Mathematical Notes and also of the Proceedings of the Society. Any desiring to become members should apply to the Hon. Sec., P. Comrie, M.A., B.Sc., 19 Craighouse Terrace, Edinburgh.

