here, the manuscript copy compiled with so much labor and care, by Mr. Lenhart, includes a Table,
‘Containing a variety of Numbers between 1 and 100,000, and the roots, not exceeding two places of figures, of two cubes, to whose difference the numbers are respectively equal’; together with a Table,
‘Exhibiting the roots of three cubes to satisfy the indeterminate equation
\[ x^3 + y^3 + z^3 = A, \]
for all values of \( A \), from 1 to 50 inclusive.’
‘Both these tables are extremely curious, and are open to inspection of all who may wish to consult them. They are lodged in the library of St. Paul’s College.’

This was probably written by Gill.

Numbers I–IV of the *Mathematical Miscellany* were published at the Flushing Institute, which had become St. Paul’s College when numbers V–VIII (1838–1839) were published. But by 1844 this College had ceased to function, and hence also its Library, no doubt.

Can any one tell us if the above mentioned ms. tables of Lenhart\(^1\) (1787–1840) have been preserved in any library or have ever been published?

R. C. A.

---


---

**QUERIES—REPLIES**

**43. Integral Evaluations (Q 22, v. 2, p. 320).—** In partial reply we may note that the integral

\[ I(t) = \int_0^t \cos (a_0 + a_1 x + a_2 x^2) dx, \]

where the \( a \)'s are real, may be evaluated in terms of the so-called Fresnel integrals

\[ C(u) = \int_0^u \cos \left( \frac{1}{2} \pi \theta^2 \right) d\theta, \quad S(u) = \int_0^u \sin \left( \frac{1}{2} \pi \theta^2 \right) d\theta, \]

We may suppose that \( a_2 \) is positive so that \( a_2 = a^2 \). Completing the square and using the cosine addition theorem gives

\[
a(2/\pi)^tI(t) = \left[ C(bt + c) - C(c) \right] \cos \delta
- \left[ S(bt + c) - S(c) \right] \sin \delta,
\]

where

\[
\delta = a_0 - a_1^2/(4a^2), \quad b = a(2/\pi)^t, \quad c = (2\pi)^{-1}a_1^2/a.
\]

S. V. Soanes

64 Airdrie Road
Toronto 17, Ontario

**CORRIGENDA**

V. 1, p. 184, l. 20 for 9D read exact.
V. 1, p. 336, 468 for Eschbach read Eshbach.
V. 3, p. 457, l. 19 for \( a_{11} \) read \( a_{11} \).
V. 3, p. 458, l. 2, for \( a_{11} = a_1^2a_{11}/a_{11} \) read \( a_{11}a_{11}/a_{11} \).