J. Austral. Math. Soc. (Series A) **56** (1994), 144–144

CORRIGENDA
to
UNIFORM DISTRIBUTION AND LATTICE POINT COUNTING

G. R. EVEREST

(Received 2 June 1992)

Equation (38) of this paper (J. Austral. Math. Soc. **53** (1992),39-50) is incorrect. It should read,

$$U(q) = \frac{\omega_K (r+1)^r}{R_K r!} (\log q)^r + o\left((\log q)^{r-1}\right). \tag{38}$$

Also, the formula in Note 1 after Theorem 4 should read

$$\sum_{i=1}^{r+1} u_i = 0.$$

The reason for the error is that the behaviour of the function $I(z)$ at $z = r - 1$ was wrongly calculated to be simple polar. In fact $I(z)$ is analytic away from $z = r$, as we now demonstrate.

Replace each of the $\zeta_i(y)$ by $2\zeta_i(y)$ and denote the resulting integral by $I_2(z)$. Obviously $I_2(z) = 2^{-z} I(z)$. Alternatively, write $2\zeta_i(y) = \zeta_i(2y)$ and change the variable $2y = y'$. The result is to multiply by 2^{-r}, and to alter the compact ball F. But we remarked that changing the ball only adds an entire function to the integral. Thus, the residue of $I_2(z)$ at any pole, $z = z_0$, differs from that of $I(z)$ by 2^{-z_0} and 2^{-r}. This shows that $z = r$ is the only pole.

School of Mathematics
University of East Anglia
Norwich NR4 7TJ
England

© 1994 Australian Mathematical Society 0263-6115/94 $A2.00 + 0.00

https://doi.org/10.1017/S1446788700034789 Published online by Cambridge University Press