

**RAMANUJAN'S NOTEBOOKS, PART I**  
**ERRATA**

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Page      Correction

3    At the end of line 8, read Sadleirian for Sadlerian.

7    In line 28, read discernible for discernable.

10   In line 27, read genesis for geneses.

50   In line 14, there appears a less than or equal to sign with two bars in it rather than the customary one,  $\leq$ . This is not a mathematical mistake, per se, but some readers (such as the one who noticed it) might think that something different is meant here because of the difference in notation. Thus, if possible, replace the two-bar inequality sign by  $\leq$ .

53   In line 11, read Thus for This.

58   Between lines 2 and 3, add the following sentence: Assume that there exists a positive constant  $c$  such that

$$G(x) \gg e^{-c\sqrt{x}}$$

as  $x \rightarrow \infty$ . (The present line 3 consisting of the single word “Put” can be put on the same line as the phrase, “as  $x \rightarrow \infty$ .”)

58   Lines 11–14. Delete the entire paragraph beginning with “Examples of functions ...”.

58   In lines 15-19, delete the paragraph beginning with “The following result ...” Replace the paragraph by the following paragraph:

The following result from Feller’s text [1, pp. 219, 227] has a superficial resemblance to Entry 10. If  $\varphi(x)$  is bounded and continuous for  $0 \leq x < \infty$ , then

$$e^{-\lambda\theta} \sum_{k=0}^{\infty} \frac{\varphi(k/\lambda)(\lambda\theta)^k}{k!} \rightarrow \varphi(\theta),$$

as  $\lambda \rightarrow \infty$ , uniformly in every finite interval in  $\theta$ .

58   In line 5b, read “and” for “amd”.

61   In line 10, read  $[\sqrt{x}/(6A)]$  for  $[\sqrt{x}/6A]$ . In otherwords, I have inserted parentheses for clarity.

61   In line 15, replace the whole line by “ $< T^{-N}$ ,” .

61   In line 16, at the beginning of the line insert the phrase: “for some constant  $T > 0$  and”. Thus, the complete line should now read: for some constant  $T > 0$  and for every  $y \in I_2$ . Therefore, as  $x$  tends to  $\infty$ ,

- 61 In line 17, read  $T^{-N}$  for  $2^{-N}$ .  
 61 In line 4b, read  $B$  for  $B$ .  
 62 In line 8, a factor of  $e^{-x}$  is missing in the definition of  $S_2$ , i.e., read

$$S_2 = e^{-x} \sum_{k \geq 2x} \frac{x^k p(k)}{k!}.$$

- 63 In line 3, at the right end, add the phrase: for some constant  $T > 0$ ,  
 63 In line 4, replace  $2^{-N}$  by  $T^{-N}$ .  
 63 In lines 5b–1b, Replace  $\leq$  by  $\ll$  in each instance.  
 63 In line 2b, replace  $m$  by  $M$ .  
 63 In line 1b, replace the exponent  $2k$  by  $k$ .  
 64 In line 1, read  $N \leq \sqrt{x}/(6A)$  for  $N \leq \sqrt{x}/6A$ . In otherwords, I have inserted parentheses for clarity.  
 64 In line 3, replace  $\leq$  by  $\ll$ .  
 89 In line 12 read an for a.  
 196 In lines 4,5, delete the entire sentence “In Ramanujan’s formulation . . . “the first term . . . .””  
 248 In lines 4 and 6, replace (6.4) by (I1) a total of three times.  
 248 In lines 4 and 6, replace  $z$  by  $x$  in each line.  
 259 In line 1 read  $H_{2k-1}$  for  $H_k$ .  
 259 In line 4, read  $H_k$  for  $h_k$ .  
 265 In line 11, i.e., in Entry 17, read  $|x| < \pi/4$  for  $|x| < \pi/2$ .  
 265 In line 13, read  $|x| < \pi/4$  for  $|x| < \pi/2$ .  
 288 In line 9b, i.e., in Corollary (i), replace For  $|x| \leq 1$ , by For  $-3+\sqrt{8} \leq x \leq 1$ ,  
 .  
 288 In line 2b, i.e., in Corollary (ii), replace  $|x| \leq \pi/4$  by  $|x| \leq \pi/8$ .  
 309 In line 6b read  $d_k$  for  $d^k$ .  
 313 In lines 9b–6b, the sentence, “Ramanujan was also . . . .” should be replaced by “The classical text of J. Edwards [2, vol. 2, pp. 337–342] has an informative section on Frullani’s theorem and some generalizations.”  
 333 In line 3, replace the period by a comma (after  $(\pi/4)e^{-an}$ ).  
 333 In lines 2–4, delete the huge square bracket at the right.  
 337 The reference in line 9 (for the paper by Acreman and Loxton) can be completed. It should read: *Aequa. Math.* **30** (1986), 106–117.  
 338 Under the author Balakrishnan, in reference [1], the reference can be completed and the last part should read: **46** (1982), 181–187.  
 338 Under the author Balakrishnan, in reference [2], replace “to appear” by *Bull. Austral. Math. Soc.* **33** (1986), 351–357.  
 340 In line 9b, read  $(\frac{1}{4})^3$  instead of  $(\frac{1}{4})^4$ .