

Corrigendum to “Average Orders of Certain Arithmetical Functions” [J. Ramanujan Math. Soc. 21 (2006), no. 3, 267–277]

Kaneenika Sinha

August 11, 2011

Department of Mathematical and Statistical Sciences, University of Alberta, Edmonton, Alberta, Canada, T6G 2G1

email: kansinha@math.ualberta.ca

The purpose of this note is to correct an error in the above article. The values of the constants $\gamma_{i,k}$ appearing in Theorem 2 and Proposition 8 have been incorrectly recorded. The correct values are described as follows:

$$\gamma_{0,2} = \frac{\zeta(3/2)}{\zeta(3)} \text{ and } \gamma_{1,2} = \frac{\zeta(2/3)}{\zeta(2)}.$$

For $k \geq 3$ and $K = \frac{1}{2}(3k^2 + k - 2)$, let $a_{r,k}$ ($2k + 2 < r \leq K$) be chosen so that

$$\left(1 + \frac{v^k}{1-v}\right) (1-v^k)(1-v^{k+1}) \cdots (1-v^{2k-1}) = 1 - v^{2k+2} + \sum_{r=2k+3}^K a_{r,k} v^r.$$

For $k \geq 3$ and $0 \leq i \leq k-1$,

$$\gamma_{i,k} = \prod_{\substack{0 \leq j \leq k-1 \\ j \neq i}} \zeta\left(\frac{k+j}{k+i}\right) \prod_p \left(1 - p^{-\frac{2k+2}{k+i}} + \sum_{r=2k+3}^K a_{r,k} p^{-\frac{r}{k+i}}\right).$$

We also observe that in Proposition 8, $k \geq 1$ should be replaced by $k \geq 2$.

Acknowledgments. I would like to thank Steven Finch for bringing this to my attention.