GLASNIK MATEMATIČKI
Vol. 58(78)(2023), 155 – 156

CORRIGENDUM TO "A GENERALIZATION OF ISEKI'S FORMULA"

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Abstract. This corrigendum is written to correct an error in Theorem 1 in [1].

1. Correction

The main result of [1] needs a correction. We would like to thanks Ali Saraeb (American University of Beirut) who informed us of this mismatch.

In Theorem 2.1 of [1] the function $g_0(\alpha,\beta,z,\theta)$ should be (here $e(x) := e^{2\pi i x}$)

$$g_0(\alpha,\beta,z,\theta) := -\frac{2\beta\pi}{z}\frac{e((2-\beta)\theta/z)}{(e(\theta/z)-1)^2} + \frac{z}{\theta}\frac{e(i\alpha\theta)}{(e(i\theta)-1)} + \frac{\pi}{z}\frac{e((1-\beta)\theta/z)\left\{2(\beta-1) - i(2\alpha-1)\left\{e(\theta/z)-1\right\}z\right\}}{(e(\theta/z)-1)^2}.$$

The function $h_{\beta,z,\theta}$ in page 20 of [1] should be

$$h_{\beta,z,\theta} := -\frac{i}{\theta}\left(\beta - \frac{1}{2} - \frac{e(-\beta\theta/z)}{e(-\theta/z)-1} - \frac{z}{2\pi i\theta}\right).$$

With this modification the proof goes completely unchanged but we obtain $g_0(\alpha,\beta,z,\theta)$ as above.

If we set $\theta = 0$ in Theorem 2.1 we obtain S. Iseki's formula. We stress that the main property of formula of Theorem 2.1 remains: one can differentiate it $n-$times and let $\theta \to 0$ which yields an infinite family of inversion formulas.

References

[1] P. A. Panzone, L. Piovan and M. Ferrari, *A generalization of Iseki's formula*, Glas. Mat. Ser. III **46(66)**, (2011), 15–24.

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Received: 26.2.2023.
Revised: 19.4.2023.