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CORRIGENDUM TO NEW INEQUALITIES ON HOMOGENEOUS FUNCTIONS, J. INDONES. MATH. SOC. 15 (2009), NO. 1, 49-59

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The paper contains typing errors.

Theorem 2 Let $\mu_1, \mu_2 \in (-2, \infty)$, $r < 1$. If $\mu_1 \leq \frac{4}{1-r} \leq \mu_2$, then

$$gn_{\mu_2,r}(a,b) \leq L(a,b) \leq Gn_{\mu_1,r}(a,b). \tag{12}$$

Furthermore $\mu_1 = \mu_2 = \frac{4}{1-r}$ is the best possibility for inequality (12). Also for $r = 0$,

$$gn_{\mu_2,0}(a,b) \leq L(a,b) \leq Gn_{\mu_1,0}(a,b). \tag{13}$$

Furthermore $\mu_1 = \mu_2 = 4$ is the best possibility for inequality (13).

Theorem 3 For $\mu_1, \mu_2 \in (-2, \infty)$, $r \neq \frac{2}{3}$, $r < 1$ and if $\mu_1 \leq \frac{2}{2-3r} \leq \mu_2$, then

$$gn_{\mu_2,r}(a,b) \leq I(a,b) \leq Gn_{\mu_1,r}(a,b). \tag{15}$$

Furthermore $\mu_1 = \mu_2 = \frac{2}{2-3r}$ is the best possibility for inequality (15). Also for $r = 0$,

$$gn_{\mu_2,0}(a,b) \leq I(a,b) \leq Gn_{\mu_1,0}(a,b). \tag{16}$$

Furthermore $\mu_1 = \mu_2 = 1$ is the best possibility for inequality (16).

Theorem 4 For $\mu_1, \mu_2 \in (-2, \infty)$, $r \neq 0$ and if $\mu_2 \leq \frac{2}{r} - 2 \leq \mu_1$, then

$$gn_{\mu_2,0}(a,b) \leq M_r(a,b) \leq Gn_{\mu_1,0}(a,b). \tag{17}$$

Furthermore $\mu_1 = \mu_2 = \frac{2}{r} - 2$ is the best possibility for inequality (17)

The above Theorems should be corrected to as follows:

Theorem 2 For $r \neq \frac{1}{3}$ and $\mu_1, \mu_2 \in (-2, \infty)$ such that $\mu_1 \leq \frac{4}{1-3r} \leq \mu_2$, then

$$gn_{\mu_2,r}(a,b) \leq L(a,b) \leq Gn_{\mu_1,r}(a,b). \quad (12)$$

Furthermore $\mu_1 = \mu_2 = \frac{4}{1-3r}$ is the best possibility for inequality (12). Also for $r = 0$,

$$gn_{\mu_2,0}(a,b) \leq L(a,b) \leq Gn_{\mu_1,0}(a,b). \quad (13)$$

Furthermore $\mu_1 = \mu_2 = 4$ is the best possibility for inequality (13).

Theorem 3 For $r \neq \frac{2}{3}$ and $\mu_1, \mu_2 \in (-2, \infty)$ such that $\mu_1 \leq \frac{2}{2-3r} \leq \mu_2$, then

$$gn_{\mu_2,r}(a,b) \leq I(a,b) \leq Gn_{\mu_1,r}(a,b). \quad (15)$$

Furthermore $\mu_1 = \mu_2 = \frac{2}{2-3r}$ is the best possibility for inequality (15). Also for $r = 0$,

$$gn_{\mu_2,0}(a,b) \leq I(a,b) \leq Gn_{\mu_1,0}(a,b). \quad (16)$$

Furthermore $\mu_1 = \mu_2 = 1$ is the best possibility for inequality (16).

Theorem 4 For $r \neq 1$ and $\mu_1, \mu_2 \in (-2, \infty)$ such that $\mu_2 \leq \frac{r}{1-r} \leq \mu_1$, then

$$gn_{\mu_2,0}(a,b) \leq M_r(a,b) \leq Gn_{\mu_1,0}(a,b). \quad (17)$$

Furthermore $\mu_1 = \mu_2 = \frac{r}{1-r}$ is the best possibility for inequality (17).

Remark. Carlson [1] and Lin [2] gave some inequalities on mean and logarithmic mean.

References

[1] Carlson, B.C., "The logarithmic mean", *Amer. Math. Monthly*, **79** (1972), 615-618.

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