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CORRECTION TO 'DECOMPOSING LINEAR TRANSFORMATIONS'

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The following changes should be made to [4].

The proof of [4, Lemma 2] has a gap (we thank Professor Zhuang Niu for pointing this out to us), and its validity is not verified. Hence, [4, Theorem 1] and its proof should be revised as follows.

Theorem 1 (Revised). *Let* $\mathrm{End}(V_D)$ *be the ring of linear transformations of a right vector space* V *over a division ring* D.

(1) *If* $|D| > 3$, *then* $\mathrm{End}(V_D)$ *satisfies* (P).
(2) *If* $|D| > 2$, *then* $\mathrm{End}(V_D)$ *satisfies* (Q).

Proof. (1) Use the proof of part 1 of [4, Theorem 1], replacing 'Lemmas 2 and 4(1)' by 'Lemmas 1 and 2 of [3]'.

(2) It is well known that $R := \mathrm{End}(V_D)$ is a von Neumann regular, right self-injective ring. For $|D| \geq 4$, R satisfies (P) by (1), so R satisfies (Q) by [4, Proposition 5]. So we can assume that $|D| = 3$. Thus, every element of R is the sum of an idempotent and a unit of R by [1, Theorem 3.9], and 2 is a unit of R. Hence, by [2, Theorem 11], for any $a \in R$, $a = u + v$ where u is a unit of R and $v^2 = 1$. This shows that $a - v = a - v^{-1} = u$ is a unit. So R satisfies (Q). □

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