

ERRATUM TO  $(\delta, 2)$ -PRIMARY IDEALS  
OF A COMMUTATIVE RING

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In Theorem 6 of [1], if  $R$  is a von Neumann regular ring, then every 2-prime ideal of  $R$  is a prime ideal. But the converse of this implication does not hold. Thus, we correct Theorem 6 of [1] as follows:

**Theorem 6.** *Let  $R$  be a ring. If  $R$  is von Neumann regular, then every 2-prime ideal of  $R$  is a prime ideal.*

*Proof.* Suppose that  $I$  is a 2-prime ideal of  $R$ . Let  $x, y \in R$  with  $xy \in I$  and  $x \notin I$ . Since  $R$  is von Neumann regular, there exists  $a \in R$  such that  $x = ax^2$ . If  $x^2 \in I$ , then  $x = ax^2 \in I$ , a contradiction. Thus,  $x^2 \notin I$ . By our assumption, we get  $y^2 \in I$ . Hence  $y \in \sqrt{I} = I$  as  $R$  is a von Neumann regular ring. Thus  $I$  is a prime ideal of  $R$ .  $\square$

*References*

- [1] *G. Ulucak, E. Yetkin Çelikel:  $(\delta, 2)$ -primary ideals of a commutative ring. Czech. Math. J. 70 (2020), 1079–1090.* 

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