

# ALMOST PRIME RADICAL AND ALMOST RADICAL IDEALS

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Let  $R$  be a ring. An ideal  $P$  of  $R$  is called an almost prime ideal if whenever  $A, B$  are ideals of  $R$  with  $AB \subseteq P$  and  $AB \not\subseteq P^2$ , then either  $A \subseteq P$  or  $B \subseteq P$ . We construct the concept of the almost prime radical of an ideal with a sequential construction of all the definitions and theorems needed for it to be. We insert the definitions of an almost  $m$ -system and an almost multiplicatively closed set, we prove that the almost prime radical of an ideal  $I$  of a ring  $R$ , is just the intersection of all minimal almost prime ideals  $P$  with respect to  $I$ , such that  $P^2 = I^2$ , or it is identical with the ring  $R$ . We also define the almost radical ideal. Although the definitions of prime radical and almost prime radical of an ideal are somewhat different, we found surprisingly some similar results to those results that have been demonstrated in studying the prime radical of an ideal.

## REFERENCES

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