

# DEFECTIVE RAMSEY NUMBERS: CLASSICAL PROOFS AND COMPUTER ENUMERATIONS

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We investigate a variant of Ramsey numbers called defective Ramsey numbers, introduced by Ekim and Gimbel in 2013, where cliques and independent sets are generalized to  $k$ -dense and  $k$ -sparse sets, both commonly called  $k$ -defective sets. Following some defective parameters in general graphs, we focus on the computation of defective Ramsey numbers in some restricted graph classes: cographs, chordal graphs, bipartite graphs, perfect graphs, split graphs, cacti, and triangle-free graphs. We adopt a two-fold approach to tackle defective Ramsey numbers. We provide direct proofs using structural graph theory. When this technique falls short in obtaining new values of defective Ramsey numbers, we use efficient graph enumeration techniques for structured graphs.

## References

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