

CONTRIBUTIONS TO ARITHMETIC
IDENTITIES INVOLVING SUMS OF
POLYGONAL NUMBERS, n -COLOR
PARTITIONS, RESTRICTED
OVERPARTITIONS AND t -CORES

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE
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Conclusions

In this thesis, we have considered various arithmetic identities involving the sums of polygonal numbers, n -color partitions, restricted overpartitions and t -cores. The identities involve congruences, recurrences and exact generating functions for certain arithmetic functions. Specific and general cases have been considered for many such identities.

We conclude by noting that such results can also be obtained for other restricted partition functions and arithmetic functions in a similar manner.