

Changing relationship between sets using convolution sums

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June 7, 2022

Abstract

There are real life situations in our lives where the things are changing continuously or from time to time. It is a very important problem for one whether to continue the existing relationship or to form a new one after some occasions. That is, people, companies, cities, countries, etc. may change their opinion or position rapidly. In this work, we think of the problem of changing relationships from a mathematical point of view and think of an answer. In some sense, we comment these changes as power changes. Our number theoretical model will be based on this idea. Using the convolution sum of the restricted divisor function σ_k , we obtain the answer to this problem.

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