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CS200

2/23/2022

Homework #3

In terms of sets and subsets, equates to the number subsets that can be constructed from a set where represents the cardinality of the set. equates to the number of subsets with cardinality of that can be constructed from a set with cardinality of . Similarly, is the summation of the number of subsets that can be constructed from a set with cardinality of *n* where the size of the subsets being constructed iterates from 0 through . Therefore, encapsulates all of the subsets that can be constructed from a set with cardinality of n. In this way, because both are ways of representing the total number of subsets of any cardinality that can be constructed from a set with a cardinality of .