

College of San Mateo  
Data Abstraction and Algorithms  
Assignment #3-B: Hash Functions & Hash Tables

Due Date: Saturday, April 13, 2019 (by midnight)

Weight: 3 points (3% of course grade)

Assignment: This is not a programming assignment: Do all of the following four exercises.

To draw diagrams, you may use MS Word, Power Point, Visio, or any other document maker; however, please convert to PDF and [submit your work only in PDF form](#).

*Please do not submit scanned handwritten papers with hand-drawn diagrams! Hand-drawn diagrams scanned as pdf documents will NOT be graded, such submissions will receive a ZERO score.*

Given input { 66, 28, 43, 29, 44, 69, 19 } and a hash function  $h(x) = x \bmod 10$ , show the resulting hash table:

- 1) Using Separate Chaining
- 2) Using Linear Probing
- 3) Using Quadratic Probing
- 4) Starting with the following hash function:

$$h_2(x) = 7 - (x \bmod 7),$$

apply Rehashing as described in the primary course slides

[Hash Tables and Hashing Functions lecture slides](#),  
posted under [Week 11].