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Name/Username: _____

Question 4: For each part of this question, please assume that the hash table is in the state shown below. For parts A, B and J, please answer the question. For the other parts, I give you a name and a collision resolution strategy. For parts C through I, tell me the index where the name will be inserted, with the given collision resolution strategy. Please assume that Hash-1 is used as the primary hash function, and for double-hashing, that Hash-2 is the second hash function.

0	"Addison Principle"
1	"Katelyn Celluloid"
2	"Lucas Bushwhack III"
3	"Kylie Genesis"
4	"Hailey Pyrotechnic"
5	"Alex Categoric"
6	
7	"Matthew Aspen"
8	
9	"Sydney Ansi"
10	"Suzy Sickish"
11	"Jake Smithfield"
12	
13	"Grace Jean"
14	"Jordan Cockle III"
15	"Brayden Conformal"
16	"Charlie Schoenberg"
17	"Brayden Enzymology"
18	"Lucas Irrespective"
19	
20	"Kayla Dauphine"
21	"Julian Merit"
22	
23	"Brianna Sora"
24	
25	
26	"Brianna Onion"
27	"Sophie Neal"
28	"Fred Recovery"
29	"Kate Gem"
30	
31	"Kylie Buff"
32	"Mason Bilharziasis"
33	"Ryan Sadie"
34	"Peyton Vend"
35	"Samantha Trifluouride"
36	
37	
38	"Caleb Restrict"
39	"Brooke Ala"
40	"Sarah Equestrian"
41	"Mason Goer PhD"
42	
43	
44	
45	"Logan Francis"
46	"Aaron Della"
47	"Alexander Storeroom"
48	"Samantha Super"
49	"Adam Fungible"

Name	Hash-1	Hash-2
"Allison Converge"	2717960848	1714474097
"Alyssa Upton"	3820589416	2783084181
"Arianna Duet"	1907415729	3877357883
"Brandon Purpose"	3316223959	4158351707
"Brianna Demarcate"	867010118	1832377707
"Carson Canvass"	3159356826	666611259
"Carter Strap"	330913328	3257907493
"Dontonio Rang"	2090774743	4116407117
"Isaac Scoreboard"	3093421482	1938771519
"Isabella Uranyl Esq"	4130781222	1760800057
"Isaiah Carson Weapon"	469030180	116490547
"John Ignoramus"	2917353641	288067097
"Katelyn Headphone"	4251116329	3943786625
"Mackenzie Lee"	1087604594	777117403
"Madeline Disco"	1552943702	1315089733
"Madison Homebound"	4116789745	76545077
"Mia Food"	47381348	703458261
"Natalie Weird"	3647490046	1028295229

Q4A: What is the load factor of this table?

You may give a fraction: _____

Q4B: Is this a good load factor? Answer Y or N: _____

Q4C: "Dontonio Rang", Linear Probing: _____

Q4D: "Carter Strap", Quadratic Probing: _____

Q4E: "Alyssa Upton", Linear Probing: _____

Q4F: "Allison Converge", Linear Probing: _____

Q4G: "Carson Canvass", Double Hashing: _____

Q4H: "Natalie Weird", Quadratic Probing: _____

Q4I: "Brianna Demarcate", Double Hashing: _____

Q4J: In the table above, there is one name which is impossible to insert into the table with double-hashing. What is that name? (You should be able to answer this quickly. If not, skip it, and move on):
