CODING PRACTICE PROBLEMS

CONTENT:

- 1. ARRAYS
- 2. STRINGS
- 3. SLIDING WINDOW AND TWO POINTERS
- 4. RECURSION AND BACKTRACKING
- 5. BIT MANIPULATION
- 6. HASHMAP
- 7. HEAPS
- 8. BINARY SEARCH
- 9. LINKEDLIST
- **10. STACKS AND QUEUES**
- **11. TREES**
- **12. TRIE**
- 13. DYNAMIC PROGRAMMING
- **14. GRAPHS**

no	Questions	Done
	ARRAYS	
1	Rotate Array	
2	Squares of a sorted array	
3	Kadane's Algo	
4	Check if Array Is Sorted and Rotated - LeetCode	
5	Remove Duplicates from Sorted Array - LeetCode	
6	Move Zeroes - LeetCode	
7 8	Max Consecutive Ones - LeetCode Single Number - LeetCode	
9	Two Sum - LeetCode	
10	Sort Colors - LeetCode	
11	maximum product subarray	
12	majority element	
13	majority element 2	
14 15	Next Greater Element III	
16	Max Chunks to make sorted Max Chunks To Make Sorted II	
17	number of subarrays with bounded maximum	
18	First missing positive	
19	Range Addition	
20	Min No. of Platform	
21	Trapping rain water	
22	Best Time to Buy and Sell Stock - LeetCode	
	STRINGS	
	STRINGS	
23	Remove Outermost Parentheses - LeetCode	
24	Reverse Words in a String - LeetCode	
25	Largest Odd Number in String - LeetCode	
26	<u>Longest Common Prefix - LeetCode</u>	
27	<u>Isomorphic Strings - LeetCode</u>	
28	Rotate String - LeetCode	
30	Valid Anagram - LeetCode Sort Characters By Fraguency LeetCode	
31	Sort Characters By Frequency - LeetCode Maximum Nesting Depth of the Parentheses - LeetCode	
32	Roman to Integer - LeetCode	
33	String to Integer (atoi) - LeetCode	
34	Longest Palindromic Substring -	
	LeetCode	
	200000	
35	Sum of Beauty of All Substrings - LeetCode	
36	Reverse Words in a String - LeetCode	
	SLIDING WINDOW AND TWO POINTERS	
37	Container With Most Water	
38	Two Sum	
39	Two Difference	
40	Longest Substring Without Repeating Characters - LeetCode	
41	Max Consecutive Ones III - LeetCode	
42	Longest Repeating Character Replacement - LeetCode	
	Binary Subarrays With Sum - LeetCode	
44	Count Number of Nice Subarrays - LeetCode	
45	Number of Substrings Containing All Three	
	<u>Characters - LeetCode</u>	
46	Maximum Points You Can Obtain from	
	<u>Cards - LeetCode</u>	
	DEGLIDOLONI AND DAGUEDAGUES	
	RECURSION AND BACKTRACKING	
47	Permutations	
48	<u>Permutation Sequence</u>	
49 50	Combination Sum Cmbination Sum 2	
30	CHIDINGUOTI SUITI Z	

Section Sect	1
BIT MANIPULATION Single Stement Sin	
BIT MANIPULATION 54 Single Element 2 55 Single Element 2 56 Single Element 2 57 Divide 2 Intesers 58 Max AND Pair. HASHMAP Check AP sequence 60 Gerst illumination 61 Brick wall 62 Count of subrary with sum is k 63 Subsarrary with sum is k 64 Inteser Element 2 65 Insert Electe Getfandom O(1) 66 Insert Electe Getfandom O(1) 67 Insert Electe Getfandom O(1) 68 Insert Electe Getfandom O(1) 69 Insert Electe Getfandom O(1) 60 Insert Electe Getfandom O(1) 60 Insert Electe Getfandom O(1) 60 Insert Electe Getfandom O(1) 61 Insert Electe Getfandom O(1) 62 Insert Electe Getfandom O(1) 63 Insert Electe Getfandom O(1) 64 Insert Electe Getfandom O(1) 65 Insert Electe Getfandom O(1) 66 Insert Electe Getfandom O(1) 67 Insert Electe Getfandom O(1) 68 Insert Electe Getfandom O(1) 69 Insert Electe Getfandom O(1) 60 Insert Electe Getfandom O(1) 60 Insert Electe Getfandom O(1) 60 Insert Electe Getfandom O(1) 61 Insert Electe Getfandom O(1) 62 Insert Electe Getfandom O(1) 63 Insert Electe Getfandom O(1) 64 Insert Electe Getfandom O(1) 65 Insert Electe Getfandom O(1) 65 Insert Electe Getfandom O(1) 66 Insert Electe Getfandom O(1) 66 Insert Electe Getfandom O(1) 67 Insert Electe Getfandom O(1) 68 Insert Electe Getfandom O(1) 69 Insert Electe Getfandom O(1) 60 Insert Electe Getfandom O(1) 60 Insert Electe Getfandom O(1) 60 Insert Electe Getfandom O(1) 61 Insert Electe Getfandom O(1) 62 Insert Electe Getfandom O(1) 63 Insert Electe Getfandom O(1) 64 Insert Electe Getfandom O(1) 65 Insert Electe Getfandom O(1) 65 Insert Electe Getfandom O(1) 66 Insert Electe Getfandom O(1) 66 Insert Electe Getfandom O(1) 67 Insert Electe Getfandom O(1) 68 Insert Electe Getfandom O(1) 68 Insert Electe Getfandom O(1) 69 Insert Electe Getfandom O(1) 60 Insert Electe Getfandom O(1) 60 Insert Electe Getfandom O(1) 61 Insert Electe Getfandom O(1) 62 Insert Electe Getfandom O(1) 63 Insert Electe Getfandom O(1) 64 Insert Electe Getfandom O(1) 65 Insert Electe Getfan	
55 Single Element 55 Single Element 56 Single Element 57 Single Element 58 Mark AND Park 59 Mark AND Park 59 Check All Sequence 60 Gind United Single Element 60 Gind United Single Element 61 Single Element 62 South of Single Element 63 Substant of Single Element 64 Insert Elefet get Fandom dula tea allowed 65 Insert Elefet get Fandom dula tea allowed 66 Insert Elefet get Fandom dula tea allowed 66 Insert Elefet get Fandom dula tea allowed 67 Element Single Element 68 Find Single Element 69 Find Single Element 70 Substant of Single Element 71 Substant of Single Element 72 Kit Largest Element 73 Minimum number of refueling spots 74 Single Element 75 Find Median from Data Stream 76 Find Median from Data Stream 77 Gapacity to ship within D days 78 Paint Single Element 80 Search in rotated sorted array 80 Search in rotated sorted array 81 Allocate books 82 Interest Element 83 reverse Linkeditist 84 Finds the middle element 85 Filowd cycle 86 Interest Element 87 Leves Elinkeditist 88 Interest Element 89 Learsest Element Learsest Element 89 Learsest Element 89 Learsest Element 89 Learsest Element 80 Search in rotated sorted array 81 Search in rotated sorted array 81 Search in rotated sorted array 82 Search in rotated sorted array 83 Search in rotated sorted array 84 Search in rotated sorted array 85 Search in rotated sorted array 86 Search in rotated sorted array 87 Search in rotated sorted array 88 Search in rotated sorted array 89 Search in rotated sorted array 80 Search in rotated sorted array 80 Search in rotated sorted array 80 Search in rotated sorted array 81 Search in rotated sorted array 81 Search in rotated sorted arr	
55 Single Element 55 Single Element 56 Single Element 57 Single Element 58 Mark AND Park 59 Mark AND Park 59 Check All Sequence 60 Gind United Single Element 60 Gind United Single Element 61 Single Element 62 South of Single Element 63 Substant of Single Element 64 Insert Elefet get Fandom dula tea allowed 65 Insert Elefet get Fandom dula tea allowed 66 Insert Elefet get Fandom dula tea allowed 66 Insert Elefet get Fandom dula tea allowed 67 Element Single Element 68 Find Single Element 69 Find Single Element 70 Substant of Single Element 71 Substant of Single Element 72 Kit Largest Element 73 Minimum number of refueling spots 74 Single Element 75 Find Median from Data Stream 76 Find Median from Data Stream 77 Gapacity to ship within D days 78 Paint Single Element 80 Search in rotated sorted array 80 Search in rotated sorted array 81 Allocate books 82 Interest Element 83 reverse Linkeditist 84 Finds the middle element 85 Filowd cycle 86 Interest Element 87 Leves Elinkeditist 88 Interest Element 89 Learsest Element Learsest Element 89 Learsest Element 89 Learsest Element 89 Learsest Element 80 Search in rotated sorted array 81 Search in rotated sorted array 81 Search in rotated sorted array 82 Search in rotated sorted array 83 Search in rotated sorted array 84 Search in rotated sorted array 85 Search in rotated sorted array 86 Search in rotated sorted array 87 Search in rotated sorted array 88 Search in rotated sorted array 89 Search in rotated sorted array 80 Search in rotated sorted array 80 Search in rotated sorted array 80 Search in rotated sorted array 81 Search in rotated sorted array 81 Search in rotated sorted arr	
Single Filement 2	
Single Filement 2	
Single Filement 2	
Single Number 3	
Decide 2 Integers Decide 2 Integers	
HASHMAP Check AP sequence Got Grid illumination G1 Brick wall Brick wall G2 Count of subarray with sum = k G3 Subarray sum divisible by k G4 Insert Delete Editation Of L1 G5 Insert delete get random duplicates allowed G6 Longest consecutive sequence G7 Find all anagrams in a string G8 Find subarray with equal ordaning all char of other G9 Write hashmap 70 subarray with equal number of Q and 1, Subarray with equal number of Q and 2, Find subarray with equal number of Q and 2, Find substring with equal ordaning all char of other G8 Find substring with equal ordaning all char of other G9 Write hashmap 70 subarray with equal number of Q and 1, Substring with equal O 1 and 2 HEAPS Find Minimum number of refueling spots Minimum cost to connect sticks Find Median from Data Stream BINARY SEARCH BINARY SEARCH Find Median from Data Stream BINARY SEARCH SEARCH Sequence Find Median from Data Stream BINARY SEARCH SEARCH SEARC	
HASHMAP Section Control of the process of the proc	
Check AP sequence	
Check AP sequence	
Check AP sequence	
Sign	
Sign	
Brick wall	
Count of subarrary with sum = k	
Subarray sum divisible by K Insert Delete GerRandom Of (1)	
Subarray sum divisible by K Insert Delete GerRandom Of (1)	
Insert Delete GetRandom O(1)	
Insert delete get random duplicates allowed	
Second	
Find all anagrams in a string	
Find smallest size of string containing all char of other	
Substring with equal number of 0 and 1 Substring with equal 0 1 and 2	
70 subarray with equal number of 0 and 1 71 Substring with equal 0 1 and 2 HEAPS 72 Kth Largest Element 73 Minimum number of refueling spots 74 minimum cost to connect sticks 75 Employee Free time 76 Find Median from Data Stream 8 BINARY SEARCH 77 capacity to ship within D days 78 Painter's partition problem 79 search in rotated sorted array 80 Search in rotated sorted array 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
Substring with equal 0 1 and 2	
HEAPS T2 Kth Largest Element Minimum number of refueling spots Minimum number of refueling spots T5 Employee Free time T6 Find Median from Data Stream BINARY SEARCH T7 Capacity to ship within D days Painter's partition problem T9 search in rotated sorted array 80 Search in rotated sorted array 2 81 Allocate books T8 median of two sorted array LINKEDLIST 83 reverse LinkedList Find the middle element 85 Floyd cycle B6 Intersection point of 2 linked list LRU Cache STACKS AND QUEUES 88 Next Greater Element Largest Rectangular Area Histogram	
72 Kth Largest Element 73 Minimum number of refueling spots 74 minimum cost to connect sticks 75 Employee Free time 76 Find Median from Data Stream 8INARY SEARCH 77 capacity to ship within D days 78 Painter's partition problem 79 search in rotated sorted array 80 Search in rotated sorted array 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
72 Kth Largest Element 73 Minimum number of refueling spots 74 minimum cost to connect sticks 75 Employee Free time 76 Find Median from Data Stream 8INARY SEARCH 77 capacity to ship within D days 78 Painter's partition problem 79 search in rotated sorted array 80 Search in rotated sorted array 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
72 Kth Largest Element 73 Minimum number of refueling spots 74 minimum cost to connect sticks 75 Employee Free time 76 Find Median from Data Stream 8INARY SEARCH 77 capacity to ship within D days 78 Painter's partition problem 79 search in rotated sorted array 80 Search in rotated sorted array 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
73 Minimum number of refueling spots 74 minimum cost to connect sticks 75 Employee Free time 76 Find Median from Data Stream 8INARY SEARCH 77 capacity to ship within D days 78 Painter's partition problem 79 search in rotated sorted array 80 Search in rotated sorted array 2 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
73 Minimum number of refueling spots 74 minimum cost to connect sticks 75 Employee Free time 76 Find Median from Data Stream 8INARY SEARCH 77 capacity to ship within D days 78 Painter's partition problem 79 search in rotated sorted array 80 Search in rotated sorted array 2 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
74 minimum cost to connect sticks 75 Employee Free time 76 Find Median from Data Stream BINARY SEARCH 77 capacity to ship within D days 78 Painter's partition problem 79 search in rotated sorted array 80 Search in rotated sorted array 2 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
75 Employee Free time 76 Find Median from Data Stream BINARY SEARCH 77 capacity to ship within D days 78 Painter's partition problem 79 search in rotated sorted array 80 Search in rotated sorted array 2 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
BINARY SEARCH 77 capacity to ship within D days 78 Painter's partition problem 79 search in rotated sorted array 80 Search in rotated sorted array 2 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
BINARY SEARCH 77	
77 capacity to ship within D days 78 Painter's partition problem 79 search in rotated sorted array 80 Search in rotated sorted array 2 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
77 capacity to ship within D days 78 Painter's partition problem 79 search in rotated sorted array 80 Search in rotated sorted array 2 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
77 capacity to ship within D days 78 Painter's partition problem 79 search in rotated sorted array 80 Search in rotated sorted array 2 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
Painter's partition problem search in rotated sorted array 80 Search in rotated sorted array 2 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
Painter's partition problem search in rotated sorted array 80 Search in rotated sorted array 2 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
Painter's partition problem search in rotated sorted array 80 Search in rotated sorted array 2 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
Search in rotated sorted array	
80 Search in rotated sorted array 2 81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
81 Allocate books 82 median of two sorted array LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
82	
LINKEDLIST 83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
83 reverse LinkedList 84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
84 Find the middle element 85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
85 Floyd cycle 86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element Largest Rectangular Area Histogram	
86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element Largest Rectangular Area Histogram	
86 Intersection point of 2 linked list 87 LRU Cache STACKS AND QUEUES 88 Next Greater Element Largest Rectangular Area Histogram	
87 LRU Cache STACKS AND QUEUES 88 Next Greater Element Largest Rectangular Area Histogram	
STACKS AND QUEUES 88 Next Greater Element Largest Rectangular Area Histogram	
STACKS AND QUEUES 88 Next Greater Element 89 Largest Rectangular Area Histogram	
88 Next Greater Element 89 Largest Rectangular Area Histogram	
88 Next Greater Element 89 Largest Rectangular Area Histogram	
89 Largest Rectangular Area Histogram	
89 Largest Rectangular Area Histogram	
89 Largest Rectangular Area Histogram	
90 maximu size binary matrix containing 1	
90 maximu size binary matrix containing 1	
01	
valid Falcituleses	
92 <u>Min Stack</u>	
93 <u>K stacks in a single array</u>	
94 Infix evaluation	
IIIIX CYCHARIOIT	

95	K reverse in a queue	
96	<u>K queue</u>	
	TREES	
97	Preorder Traversal Preorder Traversal	
98	Inorder Traversal	
99	Postorder Traversal	
100	right side view	
101	<u>Left View</u>	
102	<u>Top View</u>	
103	Bottom View	
104	<u>Vertical order</u>	
105	<u>Diagonal Traversa</u> l	
106	Boundary Traversal	
107	Binary Tree Cameras	
108 109	Max path sum Delete node in bst	
110	Construct from inorder and preorder	
111	Next right pointer in each node	
112	Convert a binary tree to circular doubly linked list	
113	Conversion of sorted DLL to BST	
114	Lowest common ancestor	
115	serialize and deserialise	
	TRIE	
117	January and Tric	
	Implement Trie	
118 119	Max XOR of two numbers in an array Maximum XOR with an element from Array	
119	<u>Maximum XOR with an element from Array</u>	
	DYNAMIC PROGRAMMING	
	DINAMIC FROGRAMMING	
120		
	longest increasing subsequence	
121	longest increasing subsequence	
122 123	building bridges Russian doll envelopes	
124	Box stacking	
125	Paint house	
126	No. of binary string without consecutive 1	
127	Possible ways to construct the building	
128	Total no. of bst	
129	No. of balanced parentheses sequence	
130	Min cost path	
131	Cherry pickup	
132	Cherry pickup 2	
133	best time to buy and sell stock	
134 135	best time to buy and sell 2 buy and sell with transaction fee	
136	best time to buy and sell with cool down	
137	best time to buy and sell 3	
138	best time to but and sell 4	
139	burst balloons	
140	Optimal BST	
141	Matrix chain multiplication	
142	Longest common subsequence	
143	Count all pallindromic subsequence	
144	Count distinct pallindromic subsequence	
145	No. of sequence of type a^i+b^j+c^k	
146	<u>2 egg 100 floor</u>	
146	egg drop	
148	Regular Expression Matching	
149	Palindrome partitioning	
150 151	Frog jump Edit Distance	
151	0-1 Knapsack	
	O I KITOPOGEK	•
153	unbounded knapsack	

154	Fractional knapsack	
155	Coin change combination	
156	Coin change permutation	
130	<u>Conficialige permutation</u>	
	GRAPHS	
157	Number of Islands	
158	Number of Distinct Islands	
159	Rotting Oranges	
160	Bipartite graph	
161	<u>Bus routes</u>	
162	Prim's Algo	
163	<u>Dijkstra algo</u>	
164	swim in rising water	
165	<u>0-1 matrix</u>	
166	<u>bellman ford</u>	
167	Strongly Connected Components (Kosaraju's Algo)	
168	Mother Vertex	
169	Kahn's algo	
170	Alien Dictionary	
171	Number of Islands II	
172	Regions Cut By Slashes	
173	Sentence Similarity II	
174	Redundant Connection	
175	Redundant connection 2	
176	Articulation point	
177	Min swaps required to sort array	
178	Sliding Puzzle	
179	Floyd Warshall	
180	remove max number of edges to keep graph traversal	