

Concept	Problem	Class/HW	Lang	Solution				
Number Theory								
1. Prime Numbers								
Primarily Test	https://www.codechef.com	Class	Py3	Number_Theory/Primarily_Test/PRB01.py				
			C++	Number_Theory/Primarily_Test/PRB01.cpp				
Sieve of Eratosthenes	https://leetcode.com	HW	Py3	Number_Theory/Sieve_Of_Eratosthenes/TDKPRIME.cpp				
	https://www.spoj.com	HW	C++	Number_Theory/Sieve_Of_Eratosthenes/Count_primes.py				
	https://codeforces.com	Class	Py3	Number_Theory/Prime_Factors/PFACT.cpp				
Prime factors	https://codeforces.com	HW	C++	Number_Theory/Prime_Factors/Noldbach.py				
Segmented Seive	https://www.spoj.com	Class	C++	Number_Theory/Segmented_Seive/PRIME1.cpp				
2. GCD & LCM								
Eucledian Algorithm	https://leetcode.com	HW	C++	Number_Theory/Euclidian_Algorithm/GCD_array.cpp				
	https://leetcode.com	Class	Py3	Number_Theory/Euclidian_Algorithm/GCD_string.py				
LCM	https://www.geekforgeeks.org	HW	C++	Number_Theory/LCM/LCM_array.cpp				
	https://codeforces.com	HW	Py3	Number_Theory/LCM/LCM_Problem.py				
Linear Diophantine Equations	https://leetcode.com	HW	C++	Number_Theory/Linear_Diophantine_Equation/CEQU.cpp				
	https://www.spoj.com	Class	Py3	Number_Theory/Linear_Diophantine_Equation/CEQU.py				
	https://codeforces.com	Class	Py3	Number_Theory/Linear_Diophantine_Equation/Diophantine.py				
Linear Diophantine Equations	https://leetcode.com	HW	C++	Number_Theory/Linear_Diophantine_Equation/Good_Array.cpp				
3. Euler's Totient Function								
Euler's Totient Function	https://www.codechef.com	Class	C++	Number_Theory/Eulers_Totient_Function/COZIE.cpp				
	https://www.spoj.com	Class	Py3	Number_Theory/Eulers_Totient_Function/ETF.py				
	https://www.spoj.com	HW	C++					
Euler's Totient Function	https://www.spoj.com	HW						
4. Binary Exponentiation								
Binary Exponentiation	https://leetcode.com	HW	C++	Number_Theory/Binary_Exponentiation/Powxn.cpp				
	https://leetcode.com	Class	Py3	Number_Theory/Binary_Exponentiation/Powxn.py				
	https://leetcode.com	HW	C++	Number_Theory/Binary_Exponentiation/Cout_Good_Numbers.cpp				
	https://leetcode.com	HW	C++	Number_Theory/Binary_Exponentiation/Climbing_Stairs.cpp				
	https://leetcode.com	Class	Py3	Number_Theory/Binary_Exponentiation/Climbing_Stairs.py				
	https://leetcode.com	HW	C++	Number_Theory/Binary_Exponentiation/Attendance_Record_2.cpp				
Binary Exponentiation	https://codeforces.com	HW	-	Codeforces Gym for fast Exponentiation (9 problems)				
5. Combinatorics								
Combinatorics	https://codeforces.com	HW						
	https://codeforces.com	HW						
	https://leetcode.com	Class	Py3	Number_Theory/Combinatorics/Count_Anagrams.py				
	https://codeforces.com	HW						
Arrays, Strings & Linked Lists								
6. Arrays								
Basics	https://leetcode.com	Class	C++	Arrays.Strings_Linked_Lists/Array_Basics/Missing_Number.cpp				
	https://leetcode.com	HW	Py3	Arrays.Strings_Linked_Lists/Array_Basics/Single_Number.py				
	https://leetcode.com	Class	C++	Arrays.Strings_Linked_Lists/Array_Basics/Subarray_Sum_Equals_k.cpp				
			Py3	Arrays.Strings_Linked_Lists/Array_Basics/Two_Sum.py				
	https://leetcode.com	Class	C++	Arrays.Strings_Linked_Lists/Array_Basics/Two_Sum_p.cpp				
	https://leetcode.com	Class	C++	Arrays.Strings_Linked_Lists/Array_Basics/Three_Sum.cpp				
	https://leetcode.com	HW	Py3	Arrays.Strings_Linked_Lists/Array_Basics/Four_Sum.py				
Basics	https://codeforces.com	HW	-	Codeforces Gym for Basics of Arrays & Strings (9 problems)				
Dutch National Flag Problem	https://www.geekforgeeks.org	HW	C++	Arrays.Strings_Linked_Lists/Dutch_National_Flag_Algorithm/Segregate_0_and_1.cpp				
	https://leetcode.com	Class	Py3	Arrays.Strings_Linked_Lists/Dutch_National_Flag_Algorithm/Sort_Colors.py				
Moore's Voting Algorithm	https://leetcode.com	HW	C++	Arrays.Strings_Linked_Lists/Moores_Voting_Algorithm/Majority_Element.cpp				
	https://leetcode.com	HW	C++	Arrays.Strings_Linked_Lists/Moores_Voting_Algorithm/Majority_Element_II.py				
Sorting	https://codeforces.com	HW	-	Codeforces Gym on Sorting (10 problems)				
Kadane's Algorithm	https://leetcode.com	Class	Py3	Arrays.Strings_Linked_Lists/Kadanes_Algorithm/Maximum_Subarray.py				
	https://leetcode.com	HW	Py3	Arrays.Strings_Linked_Lists/Kadanes_Algorithm/Maximum_Product_Subarray.py				

7. String Basics								
Basics	https://leetcode.c	HW	Py3	Arrays_Strings_Linked_Lists/String_Basics/Longest_Common_Prefix.py				
	https://leetcode.c	HW	Py3	Arrays_Strings_Linked_Lists/String_Basics/Is_Prefix_In_Sentence.py				
	https://leetcode.c	HW						
Sliding Window			C++	Arrays_Strings_Linked_Lists/Strings_Sliding_Window/Index_Of_First_Occurrence.cpp				
	https://leetcode.c	Class	Py3	Arrays_Strings_Linked_Lists/Strings_Sliding_Window/Index_Of_First_Occurrence.py				
	https://leetcode.c	Class	Py3	Arrays_Strings_Linked_Lists/Strings_Sliding_Window/Rotate_String.py				
	https://leetcode.c	HW	Py3	Arrays_Strings_Linked_Lists/Strings_Sliding_Window/String_Matching_In_Array.py				
8. String Hashing								
Polynomial Hash	https://leetcode.c	HW						
	https://leetcode.c	HW						
Rabin-Karp Algo	https://acmp.ru/a	Class	C++	Arrays_Strings_Linked_Lists/Rabin_Karp_Algorithm/Substring_Search_Rabin_Karp.cpp				
	https://www.spoj	HW						
	https://codeforce	HW						
9. Pattern Searching in Strings								
KMP Algorithm	https://www.geek	Class	Py3	Arrays_Strings_Linked_Lists/KMP_Algorithm/Substring_Search_KMP.py				
	https://acmp.ru/a	HW						
Z Algorithm	https://leetcode.c	HW						
	https://www.geek	Class	C++	Arrays_Strings_Linked_Lists/Z_Algorithm/Substring_Search_Z_Algorithm.cpp				
	https://leetcode.c	HW						
10. Linked Lists								
Traversal			C++	Arrays_Strings_Linked_Lists/Linked_List_Traversal/PrintLinkedListElements.cpp				
	https://www.geek	Class	Py3	Arrays_Strings_Linked_Lists/Linked_List_Traversal/PrintLinkedListElements.py				
	https://leetcode.c	Class	C++	Arrays_Strings_Linked_Lists/Linked_List_Traversal/ReverseLinkedList.cpp				
Traversal	https://www.inter	HW	Py3	Arrays_Strings_Linked_Lists/Linked_List_Traversal/LinkedList_Palindrome_Check.py				
Insertion	https://www.hack	HW	Py3	Arrays_Strings_Linked_Lists/Linked_List_Insertion/LinkedList_InsertAt_End.py				
	https://www.hack	Class	C++	Arrays_Strings_Linked_Lists/Linked_List_Insertion/InsertNodeAtSpecificPosition.cpp				
Search	https://www.geek	HW						
	https://www.hack	Class	C++	Arrays_Strings_Linked_Lists/Linked_List_Search/FindMergePointOfTwoLists.cpp				
Loop Detection	https://leetcode.c	HW	Py3	Arrays_Strings_Linked_Lists/Linked_List_Search/Intersection_of_two_linked_lists.py				
	https://leetcode.c	HW	Py3	Arrays_Strings_Linked_Lists/Linked_List_Loop_Detection/Linked_List_Cycle.py				
Deletion	https://leetcode.c	HW	Py3	Arrays_Strings_Linked_Lists/Linked_List_Loop_Detection/Linked_List_Cycle_II.py				
	https://leetcode.c	HW	Py3	Arrays_Strings_Linked_Lists/Linked_List_Deletion/Delete_Node_From_Linked_List.py				
Sorting	https://leetcode.c	HW						
	https://www.inter	HW						
Doubly Linked Li	https://leetcode.c	HW						
	https://leetcode.c	HW						
11. Binary & Ternary Search								
Binary Search	https://leetcode.c	Class	Py3	Arrays_Strings_Linked_Lists/Binary_Search/Binary_Search.py				
	https://www.geek	HW	Py3	Arrays_Strings_Linked_Lists/Binary_Search/Floor_In_Sorted_Array.py				
	https://leetcode.c	HW	Py3	Arrays_Strings_Linked_Lists/Binary_Search/First_Last_Position_Sorted_Array.py				
			C++	Arrays_Strings_Linked_Lists/Binary_Search/Sqrtn_x.cpp				
	https://leetcode.c	Class	Py3	Arrays_Strings_Linked_Lists/Binary_Search/Sqrtn_x.py				
	https://www.geek	Class	Py3	Arrays_Strings_Linked_Lists/Binary_Search/Koko_Eating_Bananas.py				
	https://leetcode.c	Class	Py3	Arrays_Strings_Linked_Lists/Binary_Search/Smallest_Divisor_Given_Threshold.py				
	https://codeforce	HW						
	https://codeforce	HW						
	https://www.geek	Class	C++	Arrays_Strings_Linked_Lists/Binary_Search/Minimum_Days_To_Make_M_Bouquets.cpp				
Ternary Search	https://leetcode.c	HW						
	https://codeforce	Class	C++	Arrays_Strings_Linked_Lists/Ternary_Search/New_Bakery.cpp				
	https://www.code	HW						
Ternary Search	https://www.hack	HW						
	https://www.spoj	HW						
12. Greedy Algorithms								
	https://leetcode.c	HW						

	https://leetcode.c	Class	C++	Arrays_Strings_Linked_Lists/Standard_Greedy_Algorithms/Min_Arrows_Burst_Balloons.cpp
	https://www.geek	HW		
	https://www.geek	HW		
	https://www.geek	Class	C++	Arrays_Strings_Linked_Lists/Standard_Greedy_Algorithms/Job_Sequencing_Problem.cpp
	https://www.geek	HW		
Standard Greedy	https://leetcode.c	HW		
	https://leetcode.c	HW		
	https://www.geek	HW		
			C++	Arrays_Strings_Linked_Lists/Greedy_Problems_Arrays/Maximize_Sum_K_Negations.cpp
	https://leetcode.c	Class	Py3	Arrays_Strings_Linked_Lists/Greedy_Problems_Arrays/Maximize_Sum_K_Negations.py
	https://leetcode.c	HW		
	https://leetcode.c	HW		
	https://leetcode.c	HW		
	https://leetcode.c	Class	Py3	Arrays_Strings_Linked_Lists/Greedy_Problems_Arrays/Candy.py
Greedy Problem	https://www.geek	HW		
	https://leetcode.c	HW		
Greedy Problem	https://leetcode.c	Class	Py3	Arrays_Strings_Linked_Lists/Greedy_Problems.Strings/Largest_Number.py

Stack, Queues, Priority Queues & Heaps

13. Stacks

	https://leetcode.c	Class	Py3	Stacks_Queses_PQ_Heaps/Stacks/Next_Greater_Element_I.py
	https://leetcode.c	HW	Py3	Stacks_Queses_PQ_Heaps/Stacks/Next_Greater_Element_II.py
	https://www.hack	HW		
	https://leetcode.c	Class	C++	Stacks_Queses_PQ_Heaps/Stacks/Valid_Parentheses.cpp
	https://leetcode.c	HW		
	https://leetcode.c	HW		
	https://www.hack	HW		
			C++	Stacks_Queses_PQ_Heaps/Stacks/Largest_Rectangle_in_Histogram.cpp
	https://leetcode.c	Class	Py3	Stacks_Queses_PQ_Heaps/Stacks/Largest_Rectangle_in_Histogram.py
	https://leetcode.c	HW		
	https://www.geek	HW		
	https://www.geek	Class	C++	Stacks_Queses_PQ_Heaps/Stacks/Restrictive_Candy_Crush.cpp
Stacks	https://leetcode.c	HW		

14. Queues

	https://leetcode.c	Class	C++	Stacks_Queses_PQ_Heaps/Queues/Queue_Using_Stacks.cpp
	https://leetcode.c	HW		
	https://leetcode.c	Class	Py3	Stacks_Queses_PQ_Heaps/Queues/First.Unique_Character_String.py
	https://www.geek	HW		
	https://www.geek	HW		
Queues	https://leetcode.c	HW		
			C++	Stacks_Queses_PQ_Heaps/Deque/First_Negative_In_Every_Window_Size_K.cpp
	https://www.geek	Class	C++	Stacks_Queses_PQ_Heaps/Deque/First_Negative_In_Every_Window_Size_K.cpp
	https://www.geek	HW		
Deque	https://leetcode.c	HW		

15. Priority Queue & Heaps

	https://leetcode.c	Class	C++	Stacks_Queses_PQ_Heaps/Heaps_and_Heap_Sort/Sort_Array.cpp
	https://www.geek	HW		
Heaps and Heap	https://www.geek	HW		
	https://leetcode.c	Class	C++	Stacks_Queses_PQ_Heaps/Heap_Applications/Kth_Largest_Stream.cpp
	https://leetcode.c	HW		
	https://leetcode.c	HW		
	https://leetcode.c	Class	C++	Stacks_Queses_PQ_Heaps/Heap_Applications/Top_K_Frequent_Elements.cpp
	https://leetcode.c	HW		
Heap Application	https://leetcode.c	HW		
	https://leetcode.c	Class	C++	Stacks_Queses_PQ_Heaps/Advanced_Heap_Problems/Median_Data_Stream.cpp
	https://leetcode.c	HW		
	https://leetcode.c	HW		
Advanced Heap	https://leetcode.c	HW		

Trees & Graphs

16. Trees & Binary Search Trees

		Class	C++	Trees_and_Graphs/Tree_Representation/Binary_Tree_Representation.cpp
Tree Representa	https://www.geek	Class	Py3	Trees_and_Graphs/Tree_Representation/Binary_Tree_Representation.py

	https://leetcode.c	HW								
	https://leetcode.c	HW								
	https://leetcode.c	HW								
	https://leetcode.c	HW								
	https://leetcode.c	Class	C++	Trees_and_Graphs/Tree_Traversal/N_Ary_Tree_Level_Order_Traversal.cpp						
Tree Traversal	https://www.geek	HW								
	https://leetcode.c	Class	C++	Trees_and_Graphs/Tree_Traversal/Binary_Tree_Right_Side_View.cpp						
	https://www.geek	HW								
	https://leetcode.c	HW								
	https://leetcode.c	Class	Py3	Trees_and_Graphs/Tree_Traversal/LCA_Binary_Tree.py						
	https://leetcode.c	HW								
Tree Applications	https://codeforce	HW								
	https://leetcode.c	HW								
	https://codeforce	Class	C++	Trees_and_Graphs/Tree_Applications/Sonya_Ice_Cream.cpp						
	https://www.code	HW								
Balanced Trees	https://codeforce	HW								
	https://leetcode.c	Class	C++	Trees_and_Graphs/Binary_Search_Trees/Search_Binary_Search_Tree.cpp						
	https://leetcode.c	HW								
	https://leetcode.c	HW								
	https://leetcode.c	HW								
	https://leetcode.c	Class	Py3	Trees_and_Graphs/Binary_Search_Trees/Maximum_Sum_BST_In_Binary_Tree.py						
	https://leetcode.c	HW								
Binary Search Tr	https://leetcode.c	HW								
	https://leetcode.c	Class	Py3	Trees_and_Graphs/Balanced_Trees/Balanced_Binary_Tree.py						
	https://leetcode.c	HW								
	https://www.geek	Class	C++	Trees_and_Graphs/Balanced_Trees/AVL_Tree_Insertion.cpp						
	https://www.geek	HW								
Balanced Trees	https://leetcode.c	HW								
17. Graphs										
Graph Represen	https://www.geek	Class	C++	Trees_and_Graphs/Graph_Representation/Print_Adjacency_List.cpp						
	https://www.geek	Class	Py3	Trees_and_Graphs/Graph_Representation/Print_Adjacency_List.py						
	https://www.geek	HW								
	https://www.geek	Class	C++	Trees_and_Graphs/Graph_Traversal/BFS_Of_Graph.cpp						
	https://www.geek	HW								
	https://leetcode.c	HW								
	https://www.geek	Class	C++	Trees_and_Graphs/Graph_Traversal/DFS_Of_Graph.cpp						
	https://www.geek	HW								
	http://codeforces	HW								
	https://leetcode.c	Class	Py3	Trees_and_Graphs/Graph_Traversal/Flood_Fill.py						
	http://codeforces	HW								
	https://leetcode.c	HW								
Graph Traversal	https://www.spoj	HW								
	https://www.geek	Class	C++	Trees_and_Graphs/Disjoint_Sets/Union_By_Rank.cpp						
	https://www.geek	HW		(Union by size)						
	https://leetcode.c	Class	Py3	Trees_and_Graphs/Disjoint_Sets/Redundant_Connection.py						
	https://www.geek	HW								
	https://www.geek	Class	C++	Trees_and_Graphs/Disjoint_Sets/Minimum_Spanning_Tree_Kruskals.cpp						
	https://www.geek	HW								
Disjoint Sets	https://leetcode.c	HW								
	https://www.geek	Class	C++	Trees_and_Graphs/Minimum_Spanning_Trees/Minimum_Spanning_Tree_Prim's.cpp						
	https://leetcode.c	HW								
	https://codeforce	Class	C++	Trees_and_Graphs/Minimum_Spanning_Trees/Shichikuji_And_Power_Grid.cpp						
	https://www.hack	HW								
	https://www.hack	HW								
Minimum Spanni	https://leetcode.c	HW								
	https://www.geek	Class	C++	Trees_and_Graphs/Topological_Sorting/Topological_Sort_DFS.cpp						
	https://www.geek	Class	Py3	Trees_and_Graphs/Topological_Sorting/Topological_Sort_Kahns.py						
	https://codeforce	HW								
	https://leetcode.c	HW								
	https://leetcode.c	HW								
	https://www.hack	HW								
Topological Sorti	https://cses.fi/pro	HW								
	https://www.geek	Class	C++	Trees_and_Graphs/Shortest_Path/Undirected_Unweighted_Graph_BFS.cpp						

https://www.geekforgeeks.org/	HW					
https://www.geekforgeeks.org/	HW					
https://codeforces.com/	HW					
https://www.geekforgeeks.org/class/	Class	C++	Trees_and_Graphs/Shortest_Path/Weighted_Graph_Dijkstra.cpp			
https://leetcode.com/problems/	HW					
https://leetcode.com/problems/	HW					
https://leetcode.com/problems/	HW					
https://www.geekforgeeks.org/class/	Class	Py3	Trees_and_Graphs/Shortest_Path/Bellman_Ford.py			
https://leetcode.com/problems/	HW					
https://leetcode.com/problems/	HW					
https://leetcode.com/problems/	Class	Py3	Trees_and_Graphs/Shortest_Path/Number_Ways_Arrive_At_Destination.py			
Shortest Path						
https://codeforces.com/	HW					

Dynamic Programming

18. DP on Arrays & Matrices

	https://leetcode.c	HW				
		Py3	Dynamic_Programming/Standard_Array_Matrix_DP/Longest_Increasing_Subsequence.py			
	https://leetcode.c	Class	C++	Dynamic_Programming/Standard_Array_Matrix_DP/Longest_Increasing_Subsequence.cpp		
	https://leetcode.c	HW				
	https://www.geek	HW				
	https://www.geek	HW				
	https://www.hack	Class	Py3	Dynamic_Programming/Standard_Array_Matrix_DP/Coin_Change_Problem.py		
Standard Array &	https://www.geek	HW				
	https://leetcode.c	HW				
	https://leetcode.c	HW				
	https://www.geek	Class	C++	Dynamic_Programming/Array_DP/Minimal_Cost.cpp		
	https://www.hack	HW				
			C++	Dynamic_Programming/Array_DP/House_Robber.cpp		
	https://leetcode.c	Class	Py3	Dynamic_Programming/Array_DP/House_Robber.py		
	https://leetcode.c	HW				
Array DP	https://codeforce	HW				
	https://leetcode.c	HW				
	https://leetcode.c	Class	C++	Dynamic_Programming/Matrix_DP/Unique_Paths_II.cpp		
	https://leetcode.c	HW				
	https://leetcode.c	HW				
	https://www.geek	Class	C++	Dynamic_Programming/Matrix_DP/Chocolates_Pickup.cpp		
	https://www.hack	HW				
Matrix DP	https://www.hack	HW				

19. DP on Strings

	https://leetcode.c HW					
	https://www.geek HW					
	https://leetcode.c HW					
Standard String	https://www.geek Class	Py3	Dynamic Programming/Standard_String_DP/Palindromic_Partitioning.cpp			
	https://www.geek HW					
	https://leetcode.c HW					
		Class	Py3	Dynamic Programming/String_DP/Sam_And_Substrings.py		
	https://www.hack Class	C++	Dynamic Programming/String_DP/Sam_And_Substrings.cpp			
	https://codeforce HW					
	https://leetcode.c HW					
	https://leetcode.c Class	C++	Dynamic Programming/String_DP/Shortest_Common_Supersequence.cpp			
	https://www.hack HW					
	https://leetcode.c Class	C++	Dynamic Programming/String_DP/Wildcard_Matching.cpp			
	https://atcoder.jp HW					
	https://codeforce HW					
String DP						

20. DP on Trees & Graphs

	https://www.geek	HW				
	https://www.geek	HW				
Standard Tree &	https://www.geek	Class	C++	Dynamic Programming/Standard_Trees_Graphs_DP/Floyd_Warshall.cpp		
	https://www.geek	HW				
	https://leetcode.com	HW				
	https://www.geek	HW				
	https://leetcode.com	HW				

	https://leetcode.c	Class	C++	Dynamic_Programming/Tree_DP/Sum_Of_Distances_In_Tree.cpp			
Tree DP	https://codeforce	HW					
	https://www.hack	HW					
	https://leetcode.c	Class	Py3	Dynamic_Programming/Graph_DP/Largest_Color_Value_Directed_Graph.py			
	https://leetcode.c	HW					
	https://leetcode.c	Class	Py3	Dynamic_Programming/Graph_DP/Cat_And_Mouse.py			
	https://leetcode.c	HW					
	https://codeforce	HW					
Graph DP	https://codeforce	HW					