HackerRank Online Judge

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HackerRank Online Judge – Phase 3 Mathematics

Lecture Agenda

We will discuss in this lecture the following topics

1- Fundamentals   [5 problems]

2- Number Theory   [35 problems]

3- Combinatorics   [20 problems]

4- Algebra   [25 problems]

5- Geometry   [15 problems]

6- Probability   [15 problems]

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Let's
STARTUP

Lecture Agenda

Section 1: Fundamentals

Section 2: Number Theory

Section 3: Combinatorics

Section 4: Algebra

Section 5: Geometry

Section 6: Probability

HackerRank - Fundamentals

[01] https://www.hackerrank.com/challenges/summing-the-n-series/problem

[02] https://www.hackerrank.com/challenges/diwali-lights/problem

[03] https://www.hackerrank.com/challenges/special-multiple/problem

[04] https://www.hackerrank.com/challenges/sherlock-and-permutations

[05] https://www.hackerrank.com/challenges/even-odd-query/problem

[06] https://www.hackerrank.com/challenges/matrix-tracing/problem

Lecture Agenda

✓ Section 1: Fundamentals

Section 2: Number Theory

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HackerRank – Number Theory

[01] https://www.hackerrank.com/challenges/littlepandapower/problem

[02] https://www.hackerrank.com/challenges/mehta-and-his-laziness/problem

[03] https://www.hackerrank.com/challenges/minimal-distance-to-pi/problem

[04] https://www.hackerrank.com/challenges/help-mike/problem

[05] https://www.hackerrank.com/challenges/dance-class/problem

[06] https://www.hackerrank.com/challenges/akhil-and-gf/problem

[07] https://www.hackerrank.com/challenges/little-chammys-huge-donation/problem

[08] https://www.hackerrank.com/challenges/manasa-and-factorials/problem

[09] https://www.hackerrank.com/challenges/number-of-subsets/problem

[10] https://www.hackerrank.com/challenges/largest-coprime-submatrix/problem

[11] https://www.hackerrank.com/challenges/divisor-exploration-2/problem

[12] https://www.hackerrank.com/challenges/strange-numbers/problem

[13] https://www.hackerrank.com/challenges/divisor-exploration-3/problem

[14] https://www.hackerrank.com/challenges/sherlock-puzzle/problem

[15] https://www.hackerrank.com/challenges/devu-police/problem

[16] https://www.hackerrank.com/challenges/long-permutation/problem

HackerRank - Number Theory

[17] https://www.hackerrank.com/challenges/divisor-exploration/problem

[18] https://www.hackerrank.com/challenges/scalar-products/problem

[19] https://www.hackerrank.com/challenges/number-of-m-coprime-arrays/problem

[20] https://www.hackerrank.com/challenges/chandrima-and-xor/problem

[21] https://www.hackerrank.com/challenges/flip/problem

[22] https://www.hackerrank.com/challenges/fibonacci-gcd/problem

[23] https://www.hackerrank.com/challenges/a-very-special-multiple/problem

[24] https://www.hackerrank.com/challenges/fibonacci-lcm/problem

[25] https://www.hackerrank.com/challenges/unfriendly-numbers/problem

[26] https://www.hackerrank.com/challenges/gcd-product/problem

[27] https://www.hackerrank.com/challenges/the-bouncing-flying-ball/problem

[28] https://www.hackerrank.com/challenges/period/problem

[29] https://www.hackerrank.com/challenges/order-of-prime-in-factorial/problem

[30] https://www.hackerrank.com/challenges/niceclique/problem

[31] https://www.hackerrank.com/challenges/superpowers/problem

[32] https://www.hackerrank.com/challenges/degree-of-an-algebraic-number/problem

HackerRank - Number Theory

[33] https://www.hackerrank.com/challenges/demidenko-computer-virus/problem

[34] https://www.hackerrank.com/challenges/coprime-power-sum/problem

[35] https://www.hackerrank.com/challenges/gcd-mocktail/problem

[36] https://www.hackerrank.com/challenges/bear-and-cryptography/problem

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HackerRank - Combinatorics

[01] https://www.hackerrank.com/challenges/mehta-and-the-typical-supermarket/problem

[02] https://www.hackerrank.com/challenges/game-of-throne-ii/problem

[03] https://www.hackerrank.com/challenges/permutation-problem/problem

[04] https://www.hackerrank.com/challenges/towers

[05] https://www.hackerrank.com/challenges/tile-painting-revisited

[06] https://www.hackerrank.com/challenges/polita-sets

[07] https://www.hackerrank.com/challenges/alien-flowers

[08] https://www.hackerrank.com/challenges/grid-lines

[09] https://www.hackerrank.com/challenges/highway-construction

[10] https://www.hackerrank.com/challenges/value-of-all-permutations

[11] https://www.hackerrank.com/challenges/irresponsible-numbers

[12] https://www.hackerrank.com/challenges/k-balance

[13] https://www.hackerrank.com/challenges/strongly-connected-digraphs

[14] https://www.hackerrank.com/challenges/r-tree-decoration

[15] https://www.hackerrank.com/challenges/count-palindromes

[16] https://www.hackerrank.com/challenges/introduction-to-representation-theory/problem

HackerRank - Combinatorics

[17] https://www.hackerrank.com/challenges/demidenko-farmer/problem

[18] https://www.hackerrank.com/challenges/surveillance/problem

[19] https://www.hackerrank.com/challenges/to-heap-or-not-to-heap/problem

[20] https://www.hackerrank.com/challenges/sasha-and-swaps/problem

[21] https://www.hackerrank.com/challenges/powercode/problem

[22] https://www.hackerrank.com/challenges/how-many-trees/problem

[23] https://www.hackerrank.com/challenges/byteland-itinerary/problem

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HackerRank - Algebra

[01] https://www.hackerrank.com/challenges/easy-sum/problem

[02] https://www.hackerrank.com/challenges/pairwise-sum-and-divide/problem

[03] https://www.hackerrank.com/challenges/sherlock-and-square/problem

[04] https://www.hackerrank.com/challenges/xor-love/problem

[05] https://www.hackerrank.com/challenges/gneck/problem

[06] https://www.hackerrank.com/challenges/emma-and-sum-of-products/problem

[07] https://www.hackerrank.com/challenges/demidenko-black-hole/problem

[08] https://www.hackerrank.com/challenges/power-calculation/problem

[09] https://www.hackerrank.com/challenges/sherlock-and-queries/problem

[10] https://www.hackerrank.com/challenges/summing-the-k-n-series/problem

[11] https://www.hackerrank.com/challenges/circle-summation/problem

[12] https://www.hackerrank.com/challenges/signal-tower/problem

[13] https://www.hackerrank.com/challenges/summing-the-k-n-r-series/problem

[14] https://www.hackerrank.com/challenges/fun-with-series/problem

[15] https://www.hackerrank.com/challenges/introduction-to-algebra-2/problem

[16] https://www.hackerrank.com/challenges/black-box-1/problem

HackerRank - Algebra

[17] https://www.hackerrank.com/challenges/linear-algebra-foundations-7-the-1000th-power-of-a-matrix/problem

[18] https://www.hackerrank.com/challenges/linear-algebra-fundamentals-8-systems-of-equations/problem

[19] https://www.hackerrank.com/challenges/linear-algebra-fundamentals-9-eigenvalues/problem

[20] https://www.hackerrank.com/challenges/determinant-of-the-matrix-2/problem

[21] https://www.hackerrank.com/challenges/eigenvalue-of-matrix-1/problem

[22] https://www.hackerrank.com/challenges/eigenvalue-of-matrix-2/problem

[23] https://www.hackerrank.com/challenges/eigenvalues-of-matrix-3/problem

[24] https://www.hackerrank.com/challenges/eigenvalues-of-matrix-4/problem

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HackerRank - Geometry

[01] https://www.hackerrank.com/challenges/jim-beam/problem

[02] https://www.hackerrank.com/challenges/good-point/problem

[03] https://www.hackerrank.com/challenges/polygons/problem

[04] https://www.hackerrank.com/challenges/polygon/problem

[05] https://www.hackerrank.com/challenges/meeting-point/problem

[06] https://www.hackerrank.com/challenges/house-location/problem

[07] https://www.hackerrank.com/challenges/isosceles-triangles/problem

[08] https://www.hackerrank.com/challenges/sherlock-and-geometry/problem

[09] https://www.hackerrank.com/challenges/n-letter/problem

[10] https://www.hackerrank.com/challenges/best-sum/problem

[11] https://www.hackerrank.com/challenges/geometry-queries/problem

[12] https://www.hackerrank.com/challenges/count-triangles/problem

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[01] https://www.hackerrank.com/challenges/sherlock-and-probability/problem

[02] https://www.hackerrank.com/challenges/normal-distribution-3/problem

[03] https://www.hackerrank.com/challenges/binomial-distribution-2/problem

[04] https://www.hackerrank.com/challenges/binomial-distribution-3/problem

[05] https://www.hackerrank.com/challenges/connect-the-country/problem

[06] https://www.hackerrank.com/challenges/rirb/problem

[07] https://www.hackerrank.com/challenges/random-number-generator-1/problem

[08] https://www.hackerrank.com/challenges/zombie-march/problem

[09] https://www.hackerrank.com/challenges/bear-and-dancing/problem

[10] https://www.hackerrank.com/challenges/random/problem

[11] https://www.hackerrank.com/challenges/mathematical-expectation/problem

[12] https://www.hackerrank.com/challenges/randomness/problem

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