

## Mathematics problem list

### GCD

UVA-408

- UVA 11417 ( Solvable with  $O(\log(a * b))$  complexity ) easy
- UVA 11388 (Easy)
- UVA 11827 (GCD problem, need stringstream(string manipulation) to solve it)
- UVA 10193 ->  $O(\log(a * b))$

### ✓ Fibonacci:

- UVA 10450
- UVA 495 -> String
- UVA 10579 -> String
- UVA 11385
- UVA 11000
- UVA 10334 (String)

### ➤ Divisor:

- UVA 13185 (easy, Brute-force)
- UVA 382 (Easy, need to handle presentation error)
- UVA 13131 (Complexity  $O(\sqrt{n})$  )
- UVA 12043 (Complexity  $O(\sqrt{n})$ )
- UVA 294 ( Complexity  $O(\sqrt{n})$ )

Lightoj 1014

Lightoj 1214

### Prime:

Lightoj 1059 (Concern on memory) -> Sieve

UVA 543 -> Sieve

UVA 686 (Solvable with brute force )

UVA prime cut (Ad hoc)

UVA prime frequency (easy)

UVA Simply emirp (check critical test case, brute force )

UVA the primary problem -> Sieve

UVA 10311 -> (Sieve, advance)

UVA summation of four primes -> Sieve

UVA jumping champion -> Sieve

UVA prime word -> (Easy , bruteforce)

Acc

408

982

0783

10323

100

371

10346

11417

12289

12157

11388

11668

12372

12342

11727

12403

11715

11677

12136

11479

10071

## **ACM Easy Problems List**

272-TEX Quotes  
1124-Celebrity jeopardy  
10550-Combination Lock  
11044- Searching for Nessy  
11172- Relational Operator  
11364- Parking  
11498- Division of Nlogonia  
11547- Automatic Answer  
11727-Cost Cutting  
12250- Language Detection  
12279- Emoogles Balance  
12289-One-Two-Three  
12372-Packing for Holiday  
12403- Save Setu  
12577-Hajj-e-Akbar

10055

- Example
- i) Odd/even diffn
  - ii) Absolute value without library function
  - iii) Minimum/maximum value of two integers
  - iv) Leap Year
- 11984 - A change in Thermal Unit [C].
- 11854 - Egypt. (C).

- Problems
- ⇒ \*1172 → Relational Operators [C].
  - ⇒ 12372 → Packing for Holiday [H]
  - ⇒ (12342) → Tax calculator [C].
  - ⇒ \*11372 → Cost Cutting [C].
  - ⇒ 12403 → Save Sch [H]
  - ⇒ (11715) → Cars [H]
  - ⇒ \*11677 → Alarm Clock [C]
  - ⇒ 12436 → Schedule of a married man [H]
  - ⇒ 11479 → In this the easiest problem [H]
  - 10071 -
- mttttttttt

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22 (a)

- Loop →
- i) While
  - ii) do...while
  - iii) for
  - iv) Nested loop

Example:

- ⇒ digit sum
- ⇒ GCD LCM
- ⇒ factorial
- ⇒ prime Number

Instel - windows

Problems

- 382 → Perfection [C]
- ✓10763 → Odd Sum [C]
- 386 →  $3n+1$  [C]
- ✓100 → Peters smolus
- ✓10346 → One Two Three [H]
- ✗12289 → Tariff Plan [H]
- 12157 → No Problem [H]
- 11608 → Uniform Generator
- 408 → factorial you must kidding
- 10323 →
- 371 →
- 10070 -

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7 2(b)

Nested loop

Problems

$\Rightarrow 386 \rightarrow$  Perfect cube  
 $\checkmark 488 \rightarrow$  Triangle wave

"Conquer  
the world"

pag-3 (a)

1D Array

Example

⇒ Decimal → Binary

⇒ Binary to decimal

⇒ Fibonacci

⇒ Prime Number [Generative, sieve]

Problem

✓ 591 → Box of Br.

10038 → Jolly Jumper

10050 → Hatal

10480 →

10591 → Happy Number

Day 3(b)

2D Array

Examples

Problem

541 → Error Correcti-

- 11716 → Digital Font

~~2911~~ → ~~Train Swapping~~

441 → Lotto

"Conquer  
the world  
by knowledge"



Day 4 (a)  
String

Example:

Eg

Problem    12577 → Hajj-e-Akbar  
                  458 → The Decoders  
                  272 → Tex Quotes

Day 4(b)

⇒ Number Theory

Examples

- ⇒ Modular Arithmetic
- ⇒ Combinati- / Permutati-
- ⇒ Base Converst-
- ⇒ Big Numbers

⇒ Prime Number

Problems

- ⇒ 10127 - Over
- ⇒ 369 - combinati-
- ⇒ 389 -
- ⇒ 579 -