

Q1)

Largest number by removing 100 digits

Hint 1: Its an 11 digit number

Hint 2: Starts with a few 9s

Hint 3: Something smart is needed towards the last digits of the number to make it even bigger

> **Answer: 99999785960**

Q2)

TRUE of FALSE decimal equivalent

Hint 1: Try fixing some statement and work out the others

Hint 2: You need to tell answer in base 10

> **Answer: 20**

Followup question- In case TRUE was 0 and FALSE was 1.....11

Q3)

Find a+b in Integres listed from 1 to 9001

Hint 1: Consider single, double, triple and four-digit numbers separately

Hint 2: For the most frequent it is a close competition

> **Answer: 1+0 = 1**

Q4)

Cockroaches

Hint 1: Try with small numbers

> **Answer: 20 reach Lakshmi and 50 reach Aadirupa. 1000 Collisions**

Q5)

Min a

Hint 1: Computer science people are fond of powers of 2

> **Answer: $a = 2^{30} = 1073741824$**

Q6)

Largest prime factor of S

> **Answer: The number is 97335 and its largest prime factor is 103**

-- Audience Question --

Ackermann function... A(3, 6)

> **Answer: 509**

-- Audience Question --

Rooted tree...

> **Answer: 67**

Q7)

Gossip Mongers

Hint 1: It is $O(n)$

> **Answer: 14**

Formula comes out to be $2*(n-4) + 4$

Q8)

Celebrity

Hint 1: Try brute force first and then reduce

> **Answer: $n-1$**

Q9)

Chocolate

Hint 1: Think Simple

> **Answer: $(m*n)-1$**

Q10)

Mona

> **Answer: ZERO. Shyam is correct**

Q11)

Lights.

Hint 1: Pressing same button more than once is redundant

Hint 2: Sequence of moves doesn't matter

> **Answer: <http://www.math.ucsd.edu/~math20f/Spring/LabA1/LabA1.html>**

	X	X		X
	X	X	X	
		X	X	X
X	X		X	X
X	X			

Q12)

Prince Bridge

> **Answer: $8+1+5+1+2 = 17$**

-- Audience Question --

Priyanka Stamps

> **Answer: 419**

-- Tie Breaker --

Sum of Primes

> **Answer: 2271**

-- Tie Breaker --

Exactly 3 lied...

> **Answer: Person 3**