Problem 1 (Ships in Docker)

Setter : Muntakimur Rahman

Noting to explain, just read the problem statement very carefully.

Problem 2 (ক্লাস এইট এর চৌবাচ্চা)

Setter : Hasib

If you can't remember how you solved it in class 8, there is nothing to be worried about. Even I don't remember. Google it and find out the formula. The challenge is to simplify the x/y form. That is also very simple.

Problem 3 (Chocolate Distribution 3)

Setter : Hasib

This is a very interesting problem as it is totally based on a simple theorem. As the number is very big, you cannot even store it as an int or long long, let alone mod it by 3. **The theorem says, if the sum of digits of a number is divisible by 3, the number itself is divisible by 3**. So, take the input as a string, find out the sum of digits which will not exceed an **int** range, and check whether it is divisible by 3 or not.

Problem 4 (It “String”s)

Setter : Hasib

Take an array to keep track of the counter for every character in the string. Check in every iteration if any value is equals to Q. The first time any value becomes equal to Q is when you break the iteration. You can use set data structure but an array in this case is simply enough.

Problem 5 (My Prime Valentine)

Setter : Hasib

This problem is based on a basic graph traversal algorithm combining with a prime finder. First call sieve to calculate primes up to 100 (as maximum nodes = 100). You can apply BFS or DFS to find the shortest paths from node 1 considering each edge cost equals 1 and keep the distance in an array. While printing, just print the prime node distances.

All the codes can be found in this repository:

https://github.com/AshHasib/winter-coding-contest-18-codes