Session 1

1. Understanding the Problem

* Read the problem well And make sure U understand it.
* Make sure every statement does not conflict What U over all understood
* Write Down important details
* Identify:
    * Input: What data is provided?
    * Output: should be printed exactly?
    * Constraints: Max N? Need long long?
* Study the examples and create your own small example to confirm understanding.
  important

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2. Structuring the Problem

* Break the problem into $sub-tasks$.
* Consider edge cases :
* Very large values

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3. Implementation

* Write clean, readable code.
* Use clear variable names.

Testing

- Test with the provided examples.
- Test with your own examples.
- Test all identified edge cases.

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Problems for Today

- Problem 1 :
  https://codeforces.com/group/iEA3POa8Ps/contest/270648/problem/F
- Solution

```cpp
#include <iostream>

using namespace std;
int main(){

int n ; cin >> n;

int res1 = (n+3)*4;

cout << res1 << endl;

// another way

int judges_p = n*4;

int contestants_p = 3*4;

int res2 = judges_p + contestants_p;

cout << res2 << endl;

return 0;}
```

- Problem 2 :
  https://codeforces.com/group/iEA3POa8Ps/contest/270648/problem/E

- Solution

```cpp
#include <iostream>

using namespace std;

int main(){

    /* wrong because the compiler and
    the two number first and after that stores it in the res*/

    int a , b ; cin >> a >> b;
    long long res = a+b;
    cout << res << endl;

    /* wrong for the same reason
    the two numbers are int so thier sum will be int too
  */
    int a , b ; cin >> a >> b;
    cout << a+b << endl;

    /* True way */
    long long a , b ; cin >> a >> b;
    cout << a+b << endl;

    int a , b ; cin >> a >> b;
    long long res = (long long) a+b;
    cout << res << endl;

     return 0;}
```

- Problem 3 :
  https://codeforces.com/group/iEA3POa8Ps/contest/270648/problem/C
- Solution

```cpp
#include <iostream>
#include <cmath>



using namespace std;
```

```cpp
int main(){

    /* Wrong because of the over flow */

    int n ; cin >> n;

    int num ; cin >> num;

    int res1 = num / pow(10 , n-1) ;

    cout << res1 << endl;


     /* Wrong as it is timelimit exceeded */

    int n ; cin >> n;

    string s ; cin >> s;

    cout << s[0] << endl;


    /* True */

    int n ; cin >> n ;

    char digit ; cin >> digit;

    cout << digit << endl;
 return 0;}
```

- Problem 4 :
  https://codeforces.com/contest/630/problem/A
- Solution

```cpp
#include <iostream>

#include <cmath>



using namespace std;
```

```cpp
int main(){

  /* Wrong because of the over flow */

  long long n ; cin >> n;

  long long  num = pow(5 , n) ;

  long long  res = num % 100 ;

  cout << res << endl;


// True

  long long n ; cin >> n;

  cout << 25 << endl;

return 0;
}
```

- Problem 5 :
  https://codeforces.com/group/iEA3POa8Ps/contest/270789/problem/G
- Solution

```cpp
#include <iostream>

using namespace std;
```

```cpp
int main(){

int n , m ; cin >> n >> m;

int res = n - (n%m);

cout << res << endl;
return 0;
}
```