



## Experiment: - 10

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**Semester:** 5<sup>th</sup>

**Subject Name:** Competitive Coding (20CSP-314)

### 1. Marc's Cakewalk

#### Program Code:

```
#include <bits/stdc++.h> using
namespace std;

#define rep(i,n) for(int (i)=0;(i)<(int)(n);++(i))
#define rer(i,l,u) for(int (i)=(int)(l);(i)<=(int)(u);++(i))
#define reu(i,l,u) for(int (i)=(int)(l);(i)<(int)(u);++(i))
static const int INF = 0x3f3f3f3f; static const
long long INFL = 0x3f3f3f3f3f3f3f3fLL;
typedef vector<int> vi; typedef
pair<int, int> pii; typedef
vector<pair<int, int> > vpii;
typedef long long ll;
template<typename T, typename U> static
void amin(T &x, U y) { if (y < x) x
= y; } template<typename T, typename
U> static void amax(T &x, U y) { if
(x < y) x
= y; }
int main(void) {
    int n;
    while (~scanf("%d", &n)) {
        vector<int> c(n); for (int
i = 0; i < n; ++ i)
            scanf("%d", &c[i]);
        sort(c.begin(), c.end());
        ll ans = 0; rep(i, n)
        ans += (ll)c[i] << (n - 1 - i);
        printf("%lld\n", ans);
    }
}
```



## Output:

### Congratulations

You solved this challenge. Would you like to challenge your friends? [f](#) [t](#) [in](#)

[Next Challenge](#)

#### Test case 0

Compiler Message

#### Test case 1

Success

#### Test case 2

Input (stdin)

[Download](#)

1 3

#### Test case 3

2 1 3 2

#### Test case 4

Expected Output

[Download](#)

1 11

## 2. Grid

### Challenge

### Program Code:

```
#include <bits/stdc++.h> using
namespace std;
```



```
typedef long long ll;
typedef pair<int, int> Pii; typedef pair<ll,
ll> Pll;
#define _USE_MATH_DEFINES
#define _CRT_SECURE_NO_DEPRECATE
#define FOR(i,n) for(int i = 0; i < (n); i++)
#define sz(c) ((int)(c).size()) #define
ten(x) ((int)1e##x) #define tenll(x)
((ll)1e##x)
template<class T> T gcd(T a, T b) { return b ? gcd(b, a % b) : a; } void
solve(){    int n; cin >> n;    vector<string> v(n);
    FOR(i, n) cin >> v[i];
    FOR(i, n) sort(v[i].begin(), v[i].end());
    bool b = true;
FOR(i, n){        string
x;
    FOR(j, n) x.push_back(v[j][i]);        string
y = x;        sort(y.begin(),
y.end());        if (x != y) {            b
= false;
        }
}    puts(b ? "YES" :
"NO");
int main(void){
int t; cin >>
t;    while
(t--) {
solve();    }
}
```

## Output:



## Congratulations

You solved this challenge. Would you like to challenge your friends?

[Next Challenge](#)

Test case 0

Compiler Message

Success

Test case 1

Input (stdin)

Download

1 1

2 5

3 eabcd

4 fghij

5 olkmn

6 trpqrs

7 xywuv

Test case 2

Test case 3

Test case 4

Test case 5

Test case 6