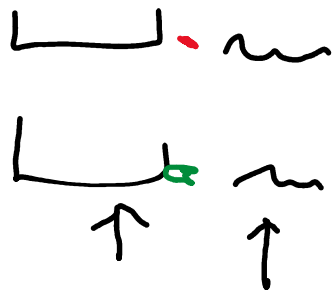
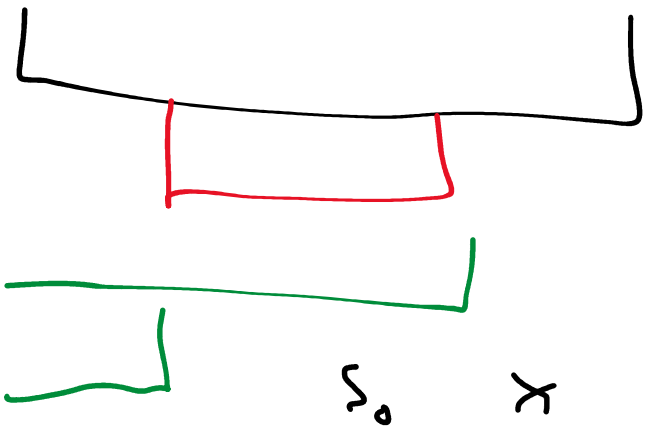
K15 - haszowanie

05 April 2024 18:41

$h(str) = int$



$s_0 + s_1 x + s_2 x^2 + \dots$



$s_0 \quad x$

$s_0 x^3 + s_1 x^2 + s_2 x + s_3$

$(s_0 x + s_1) x^2 = s_0 x^3 + s_1 x^2$

```
LL SubstringHash(int a, int b) {
        return sufHash[a]-sufHash[b+1]*pwr27[b+1-a];
}
```

```cpp
LL calcHash(string s) {
    LL hash = 0;

    for(char I : s) {
        hash *= BASE;
        hash += I-'a'+1;
        hash %= MOD;
    }

    return hash;
}
```

$(s_0 x + s_1) x + s_2$

$(s_0 x^2 + s_1 x + s_2) x + s_3$

$10^9 + 7$

1000000009

---

dp[0] = true

for(int i=0 i<t.size() i++)

if(dp[i])

for(j=0 j<w.size() j++)

if(substr(i, i+w[j].size()) == h[w[j]]

dp[i+s[j].size()] = true

dp[it v[j].size()] = true

---

vector<int> perm(n)

iota(perm.begin(), perm.end(), 1)

do {

:

.

.

.

} while(next_permutation(perm.begin() ...

```
do {
    string w2 = w;

    for(int i = 0;i < w.length();++i) {
        w2[i] = w[per[i]];
    }
    cout << w2 << endl;

    LL wHash = calcHash(w2);
    for(int i = 0;i <= s.length()-w.length();++i)
        if(wHash == sHash[i])
            res++;

} while(next_permutation(per.begin(), per.end()));
```

$\sum_i v_i \cdot size() = const$

$$\frac{n}{p} = \frac{10^5}{10^9} = \frac{1}{10^4}$$

$$\frac{n}{p_1} \cdot \frac{n}{p_2} = \frac{1}{10^8}$$