

PROTECT THE PRIVACY

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Explanation:

We can transform our word in binary notation, we can do it easily, because $64 = 2^6$. Move through the bits of this number: if bit is equal to 0, then we can have 3 different options of this bit in our pair of words: 0&1, 1&0, 0&0, else we can have only one option: 1&1. So the result will be $3^{nullbits}$, where *nullbits* — is amount of zero bits.

Code:

```
#include <iostream>
#include <stdio.h>
#include <string>
#include <bits/stdc++.h>
#define MOD 1000000007
using namespace std;
typedef long long ll;
ll i,j,n,h,ans,x,cur_h,k;
string s;
string pattern;
ll symbol_val[305];
int main()
{
    cin>>s;
    for (char i = '0'; i <= '9'; i++)
        pattern.push_back(i);
    for (char i = 'A'; i <= 'Z'; i++)
        pattern.push_back(i);
    for (char i = 'a'; i <= 'z'; i++)
        pattern.push_back(i);
    pattern.push_back('-');
    pattern.push_back('_');
    for (i = 0; i < 64; i++)
        symbol_val[pattern[i]] = i;
    ll ans = 1;
    for (i = 0; i < s.size(); i++)
    {
        ll x = symbol_val[s[i]];
        //cout<<"x "<<x<<endl;
        for (j = 0; j < 6; j++)
            if ((x&(1<<j)) == 0)
            {
                ans = (ans*3)%MOD;
                //cout<<"ans "<<ans<<endl;
            }
    }
    cout << ans << endl;
    return 0;
}
```

Time Complexity: $O(|s|)$, where $|s|$ is the length of the string