#include <stdio.h>

#include <string.h>

#define N 200000

char str[N];

int pre[N];

int len[N];

int main() {

int tc;

scanf("%d", &tc);

while (tc --) {

memset(pre, -1 , sizeof(pre));

memset(len, 0, sizeof(len));

scanf("%s", str);

int n = strlen(str);

long long sum = 0;

int k = -1;

int pos = 0;

while (pos + 1 < n) {

if (str[k + 1] == str[pos + 1]) {

k++; pos++;

pre[pos] = k;

len[pos - k] = k + 1;

} else if (k == -1) {

pos++;

} else {

k = pre[k];

len[pos - k] = k + 1;

}

}

while (k > 0) {

k = pre[k];

len[pos - k] = k + 1;

}

len[0] = n;

for (int i = 0; i < n; i++) {

sum += len[i];

}

for (int i = 0; i < n; i++) {

if (len[i] == 0) {

for (int j = 0; i + j < n; j++) {

if (str[j] == str[i+j]) {

sum++;

} else {

break;

}

}

}

}

printf("%lld\n", sum);

}

}