### 乘法逆元

long long binPow(long long base, long long expo) {  
 long long res = 1;  
 while (expo != 0) {  
 if (expo & 1)  
 res = (1LL \* res \* base) % mod;  
  
 base = (1LL \* base \* base) % mod;  
 expo >>= 1;  
 }  
 return res;  
}  
  
long long inv(long long x) {  
 return binPow(x, mod-2, mod);  
}  
  
void Inv() {  
 inv[1] = 1;  
 for (int i = 2; i < maxn; i++)  
 inv[i] = (mod - mod/i) % mod \* inv[mod%i] % mod;  
}