const int mod = (int)1e9+7;

void add(int &x, const int &y)

{

x += y;

if(x >= mod) x -= mod;

}

void sub(int &x, const int &y)

{

x -= y;

if(x < 0) x += mod;

}

#define PRODUCT(x,y) (1LL\*(x)\*(y)%mod)

int power(int x, int y)

{

int res = 1;

while(y > 0)

{

if(1&y) res = PRODUCT(res, x);

x = PRODUCT(x, x);

y /= 2;

}

return res;

}