finite(q / x, b) ;

bool finite(ll q, ll base)

{

while (q != 1) {

ll x = gcd(q, base);

if (x == 1) return false;

while (x < numeric\_limits<int32\_t>::max() / 2) x \*= x;

x = gcd(q, x);

q /= x;

}

return true;

}