//favourite dice problem spoj same as coupon collector problem

//we have n sided dice what is expected number of throws of die

// while it has n sides so that each number is rolled atleast

//once

/\* explanation

E(x)=E(x1)+E(x2)+....+E(xn)

probability of getting ith number (P)=[n-(i-1)]/n

where i-1 is already computed distinct number on dice

use bernaulli trial (Sucesss)

E(Xi)=1/P =n/[n-(i-1)];

E(x)=n/[n-(1-1)]+n/[n-(2-1)]+n/[n-(3-1)]+...+n

E(X)=n/n + n/n-1 + n/n-2 +....+n

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E(X)=n(1 + 1/2 + 1/3 + 1/4 +.... + 1/n) |

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\*/

#include<bits/stdc++.h>

#define ll long long int

using namespace std;

int main()

{

ll t;

cin>>t;

while(t--)

{

ll n;

cin>>n;

double ans=0;

for(ll i=1;i<=n;i++)

{

ans=ans+n/(i\*1.0);

}

cout<<fixed<<setprecision(2)<<ans<<"\n";

}

}