

Subaruba

Problem ID: a06p09subaruba

Ubas hubas bubeuben mubentubiubonubed uba fubew tubimubes ubin thube pubast, Subaruba ubis rubathuber ubodd. Subaruba uband huber bubest frubiubend wuberube buboth ubin Kubópubavubogubur Cubollubegube. Thubeuby cubonvubersubed frubequubuently, whubethuber thube sububject wubas thubeubir stubudubiubes, ubentubertubaubinmubent ubor thubeubir pubeubers.

Subincube cubertubaubin tubopubics wuberube subensubitubivube, Subaruba dubid nubot wubant thube pubeuboplube ubaruboubund thubem tubo ubunduberstuband whubat wubas bubeubing dubiscubussubed. Subaruba stubudubiubed lubangubuubagubes uband wubas thuberubefuborube qubuu-bitube ubadubsept ubat lubeubarnubing lubangubuubagubes fubew pubeuboplube wuboubuld ubunduberstuband. Shube cuboubuld nubot ubusube ubanuby lubangubuubagube ubat uball thubough. Ubit hubad tubo bube rubarube thubat ubanubothuber pubersubon ubat huber Schuboubol cuboubuld ubunduberstuband cubonvubersubatubiubons ubin thubat lubangubuubagube. Thubus, Subaruba dubecubidubed cubommubon spubokuben lubangubuubagubes shuboubuld bube ubavuboubidubed, fubor ubexubamplube Ubicubelubandubic, Ubenglubish, Frubench ubor ubothuber lubangubuubagubes thubat mubauby bube thube nubatubivube lubangubuubagube ubof subomube pubeuboplube.

Subaruba subeubarchubed fubor uban ubencrbyptubiubon mubethubod ubinstubeubad. Cubontubempuborubaruby ubencrbyptubiubon mubethubods wuberube mubostluby hubasubed ubon nubumbuber thubeuboruby. Subincube shube wubas nubot uba mubath whubiz shube subeubarchubed fubor ubothuber mubethubods.

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Lubuckubiluby, Hubannubes grubadubuubatudubed ubas uba cubompubutuber scubiubentubist uband knobowns hubow tubo prubogrubam. Ubas fubature wuboubuld hubavube ubit, hube ubis bubusuby wrubitubing suboftwubarube whubich prubevubents ubaubicrubaft cubollubisubiubons. Hube ubasks ubyuboubu tubo cubomplubetube thubis tubask fubor hubim. Cuban ubyuboubu wrubitube thube prubogrubam?

Ubinpubut

Thube fubirst lubinube ubin thube ubinpubut dubescribubus whubethuber thube prubogrubam shuboubuld ubencrbypt ubor dubecrbypt. Thuben uba lubinube wubith ubonube pubosubitubivube ubintubeguber n fubollubows. Fubinuballuby, n lubinubes fubollubow, ubeubach ubof whubich cubonsubists ubof subomube nubumbuber ubof wubords, whubich ubarube subepubarubatubed buby spubacubes. Wubords cubonsubist ubentubirubeluby ubof ubenglubish lubettubers, fubull stubops uband cubommubas.

Ubif thube fubirst lubinube ubis \mathbb{D} thuben thube rubest ubof thube ubinpubut shuboubuld bube ubencrbyptubed, bubut ubif ubit ubis \mathbb{Uba} thuben ubit shuboubuld bube dubecrbyptubed. Ubyuboubu mubauby ubassubumube thubat ubeubach vubowubel lubettuber ubin thube tubext rubepubesubents uba vubowubel suboubund ubon ubits ubown.

Ubinpubut ubis ubat mubost $2 \cdot 10^5$ subymbubols.

Uboubutpubut

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Sample Input 1

D
1
Sara er skrytin.

Sample Output 1

Subaruba uber skrubytubin.

Sample Input 2

A
3
Huballubo.
Mubundubu ubad stubilluba hljubodubid uba tubolubu subem
fubimm gubengubur ubupp ubi, ubeduba slubettuba tubolubu.

Sample Output 2

Hallo.
Mundu ad stilla hljodid a tolu sem
fimm gengur upp i, eda sletta tolu.