

SPOJ Problem Set (main)

1986. Ent??d

Problem code: TIM1537

Ent??d bol Elf??dtej adil ?khešg?j m?nkh am'tad yum. Ted ankh âr'ž čaddagg?j bajgaad Elf??deer khel zaalgasan bajna. Elf??d tedend khelee zaakhyn tuld daraakh argyg bolovsruulžee. KHAMgijn ankh khel sursan Ent "tijn", "?g?j" gesen khoër ?g l sursan. KHel sursan Ent khel medekhg?j kh?gšin, zaluu khoër Ent??dijg songon avč ??rijn meddeg b?kh ?gee zaana. ??nij daraa ter khoër Ented Elf??d ?rgelžl??len khel zaadag. Elf??dees khel sursan Ent b?r khel medekhg?j kh?gšin, zaluu khoër Entijg songon avč ??rijn meddeg b?kh ?gee zaagaad Elf??ded damžuulan ?g?kh gekh metčilen ?rgelžilne. Zaluu Ent??d ??rsdijn ankhny bagš Enteesee sursan ?gijn toogoor šine ?gijg Elf??dees surna. KHarin kh?gšin Ent??d Elf??dees z?vkh?n neg ?gijg l nemž surdag. Elf??deer khel zaalgasan Ent ?ldsen am'draldaa dakhiz neg č ?g surč čadakhg?j. Âg ?g?gds?n toony ?g meddeg Ent khed bajkh ve? Ene too n' maš ikh bajž bolokh učraas khariug P modular gargana.

Input

Neg m?r?nd, zajgaar tusgaarlagdan K ba P eereg b?khel toonuud ?g?gd?n? ($K \leq 10^7$; $P \leq 10^9$)

Output

Âg K širkheg ?g meddeg Ent??dijn toog P toond khuvaasny ?ldegdljig gargana

Example

Input :

4 10

Output :

2

Added by: Khuder

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Time limit: 1s

Source limit:50000B

Languages: All

Resource: Timus