Känd klartext
Problem ID: klartext

När Alice skickar email med sin vän Bob så krypterar hon all text så att inte obehöriga kan läsa den. Totalt använder Alice och Bob fem olika chiffer för att kryptera sina mail.

Din uppgift är att, givet ett krypterat email och vilket chiffer som användes för att kryptera mailet, skriva ut emailet i klartext. Med klartext menas emailet som det såg ut innan det krypterades.

Till din hjälp får du för varje chiffer ett antal krypterade email och deras klartext.

Indata

Indata består först av ett tecken 1, 2, 3, 4 eller 5 - vilket chiffer som användes för att kryptera emailet. Talet är följt av ett mellanslag, och avslutas med det krypterade emailet, som möjligtvis kan bestå av flera rader.

Output

Du ska skriva ut klartexten för det krypterade mailet.

Poäng

10 poäng ditt program ska klara av det första chiffret.

15 poäng ditt program ska klara av det andra chiffret.

25 poäng ditt program ska klara av det tredje chiffret.

25 poäng ditt program ska klara av det fjärde chiffret.

40 poäng ditt program ska klara av det femte chiffret.

Sample Input 1	Sample Output 1
1 19-aqxsmeakkd	tjqlfxtddw

Sample Input 2	Sample Output 2
1 10-clitu	mvsde

Sample Input 3	Sample Output 3
1 21-tfpkp	oakfk

Sample Input 4	Sample Output 4
2 oowysruoqxylxyq	oloxwyyqsxryuqo

Sample Input 5	Sample Output 5
2 xpfmteiggqcxquf	xxpqfcmftqeuigg

Sample Input 6	Sample Output 6
2 txypu	tuxpy

Sample Input 7	Sample Output 7
2 jxwripcv	jcxpwvri

Sample Input 8	Sample Output 8
2 ukhazdnkbyevzw	uekvhyawzbdznk

Sample Input 9	Sample Output 9
3 cbdcbccbbbddbcbbbbaccbcda	abcbbbcbbcdbacccdbbdcbbdc

Sample Input 10	Sample Output 10
3 ccbddaaabcbdbdabbacddbbba	cbdabbacaabbabdddabbdcdbc

Sample Input 11	Sample Output 11
3 acccbbdcdacacbddcadddadca	dcdadddacbcaaddbadccccbca

Sample Input 12	Sample Output 12
3 dacabdbbccadbddbcacaddcad	ccaabcbcbdaddcddddbaaabcd

Sample Input 13	Sample Output 13
3 dddcdccadbbcbababbbabdcab	bbabadcbacadbcbacbbbcdddd

Sample Input 14	Sample Output 14
3 daabcdaabdbbcbdbbccbdaddc	cbbcbbadaddacddbbdcbbacad

Sample Input 15	Sample Output 15
3 bbcdabcabaadbdaccaccdcabb	cccacbcaabbcbadddabadbacb

Sample Input 16	Sample Output 16
3 dacacaaacaacabdcdaccbcaca	cdcaccaaaaccaabbcdaaaaccd

Sample Input 17	Sample Output 17
3 abaabdcabddbccbbbbabbacbd	abbbbbcdadbadcbcbbcdabbaa

Sample Input 18	Sample Output 18
4 isqlervn	nvrelqsi

Sample Input 19	Sample Output 19
4 vhugnzlvoehjl	gnzvhulhjlvoe

Sample Input 20	Sample Output 20
4 ch	hc

Sample Input 21	Sample Output 21
4 lv	vl

Sample Input 22	Sample Output 22
4 ycbupwaew	ubcypweaw

Sample Input 23	Sample Output 23
4 nzbmzdo	nzbmzdo

Sample Input 24	Sample Output 24
4 esuqzyluymznzny	esuqzyluymznzny

Sample Input 25	Sample Output 25
4 dsjuck	uckdsj

Sample Input 26	Sample Output 26
4 khrvaooowdjehnq	khrvaooowdjehnq

Sample Input 27	Sample Output 27
4 f	f

Sample Input 28	Sample Output 28
4 upaui	puaiu

Sample Input 29	Sample Output 29
4 dvfbngyidftghz	idftghzdvfbngy

Sample Input 30	Sample Output 30
4 auaimqkt	tkqmiaua

Sample Input 31	Sample Output 31
5 01110010101101111010101000	ehmgu

Sample Input 32	Sample Output 32
5 01111010001110111100111110111001	msfiqp

Sample Input 33	Sample Output 33
5 11000011111101111000000101111010110101110100	omxadxhn

Sample Input 34	Sample Output 34
5 0000001110010110	zzit

Sample Input 35	Sample Output 35
5 00101111101100111110111000	dqvqo

Sample Input 36	Sample Output 36
5 00101001011001010100101010101010110110	clcvkht

Sample Input 37	Sample Output 37
5 00000010001001100010011111010010100010010	zzuvuvqcc

Sample Input 38	Sample Output 38
5 01110011100000010110110010101101110100100	eadtkxxj

Sample Input 39	Sample Output 39
5 1000001101010110110100	urkxn

Sample Input 40	Sample Output 40
5 10100110010010010001010100111001110000110001010000110	npjugeaont

Sample Input 41

```
5 11100111100000110010100010101001100110101001001101
```

Sample Output 41

```
iatkcvvgsx
```

Sample Input 42

```
5 10011011111001101010
```

Sample Output 42

```
vwig
```

Sample Input 43

```
5 11100010010100010011001
```

Sample Output 43

```
bcjp
```

Sample Input 44

```
5 10101110101111100001011001001011010000011100101010
```

Sample Output 44

```
hhawjwszeg
```

Sample Input 45

```
5 10100001111110010000101110001010
```

Sample Output 45

```
nryjrek
```

Sample Input 46

```
5 11100010101000101000100011001010
```

Sample Output 46

```
bkcjrc
```

Sample Input 47

```
5 10101010010001010111110001111011100100011111
```

Sample Output 47

```
gvzhbqpzy
```

Sample Input 48

```
5 11101001010110101110000011100010010011
```

Sample Output 48

```
qcxezbd
```

Sample Input 49

```
5 10100100000111110000110001110000011101110111000 1001
```

Sample Output 49

```
nuraoafxov
```

Sample Input 50

```
5 10101101010111010101110100
```

Sample Output 50

```
hkqln
```

Sample Input 51

```
5 10100010111110101000100011100101110111111
```

Sample Output 51

```
nlqssewwy
```

Sample Input 52

```
5 10101111000000111000101011001011101000010 11
```

Sample Output 52

```
hozbldnd
```

Sample Input 53

```
5 11100110101111110111100110100
```

Sample Output 53

```
ihqin
```

Sample Input 54

```
5 10000100000111000011000101011111011110001010011 11
```

Sample Output 54

```
uszaohqbsy
```

Sample Input 55

```
5 10101010000010001010001010111110110010010101 1
```

Sample Output 55

```
gujkcywjh
```

Sample Input 56

```
5 10001001010010101110101010100110
```

Sample Output 56

```
uvshggt
```

Sample Input 57

```
5 1000011100110111101
```

Sample Output 57

```
uexq
```

Sample Input 58

```
5 011111001011100101110101111111
```

Sample Output 58

```
mvewhy
```

Sample Input 59

```
5 101010001000111011010011001
```

Sample Output 59

```
gjfnp
```

Sample Input 60

```
5 010100111010011110010100011111001010
```

Sample Output 60

```
kfrpsmc
```

Sample Input 61

```
5 011111010001110000101110011010000100101110101100 0
```

Sample Output 61

```
msedvnjwhz
```

Sample Input 62

```
5 11100001010011001010001010
```

Sample Output 62

```
anpsk
```

Sample Input 63

```
5 011101001011110101010100100101000001110000001110 1
```

Sample Output 63

```
fdxkvczezf
```