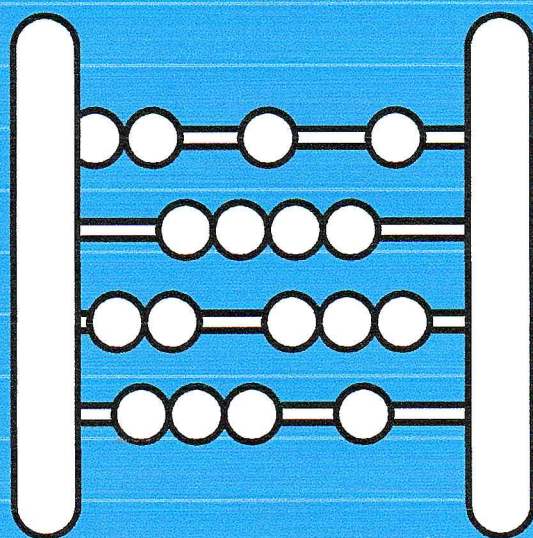


iqro KIDS

INTELEKTNI RIVOJLANTIRISH MARKAZI



PEDAGOGLAR UCHUN
MENTAL ARIFMETIKA

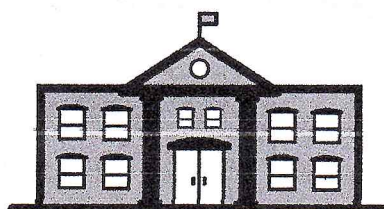
TOSHKENT - 2020

Ushbu qo'llanma mualliflik huquqi bilan himoyalangan. Muallifning yozma ruxsatisiz ushbu qo'llanmani o'zgartirish, bosib chiqarish, nusxa ko'chirish, tarqatish va ta'lim berish jarayonida foydalanish qat'iyan taqiqlanadi.

Barcha huquqlar qonun bilan himoyalangan.

PEDAGOGLAR UCHUN

MENTAL ARIFMETIKA



iqro KIDS

INTELLEKTNI RIVOJLANTIRISH MARKAZI

Toshkent - 2020

Ushbu kitob mental arifmetikani mustaqil o'rganuvchilar uchun maxsus tuzilgan qo'llanma. Qo'llanmada:

- Qo'shish
- Ayirish
- Ko'paytirish
- Bo'lish
- Kvadrat ildizdan chiqarish

Amallariga doir misollar hamda ma'ruza matni bilan tanishasiz.

Kirish qismi orqali mental arifmetikaning rivojlanish jarayoni, abakus tarixi va mental arifmetikaning bolalar aqliy rivojlanishidagi o'rni haqida tanishasiz.

Muallif: **J.O. Mirkomilovna**

Tuzuvchilar: **Sh.A.Karimov.A. Sh. Ochilov,**

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Iqrokids ilmiy-uslubiy
kengashida tasdiqlangan

“ ” _____ 2020-yil

№__ Bayonnoma

Kirish

“Mental arifmetika” qo‘shimcha aqliy rivojlanish dasturi bo‘lib, u o‘zining mantiqiy fikrlashlarini yaxshilashni istagan va aniq fanlarga qiziqish bildiradigan bolalar guruhi uchun mo‘ljallangan.

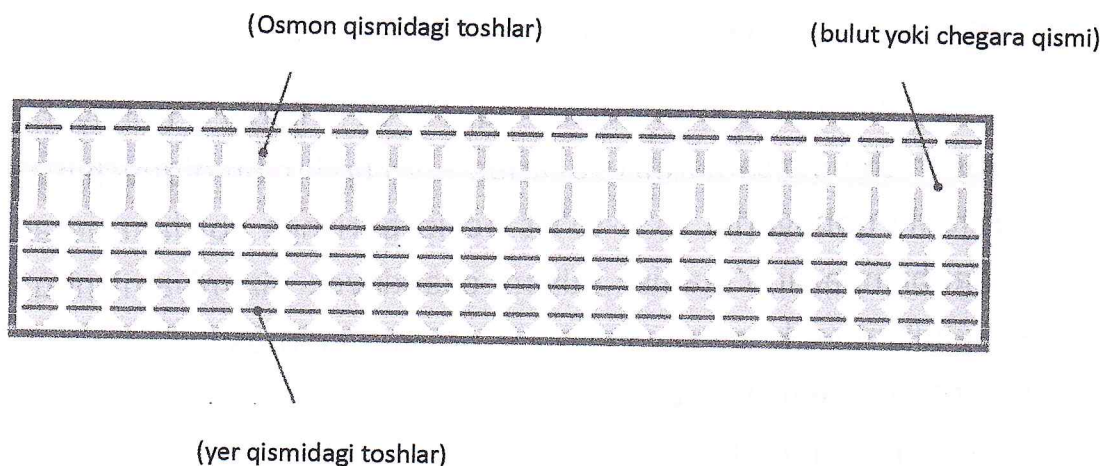
Mental arifmetika aqliy va ijodiy qobiliyatlarni uyg‘un rivojlanishining samarali usullaridan biri bo‘lib, bu o‘quvchining intellektual va ijodiy qobiliyatini to‘la-to‘kis ochib berishga yordam beradi. Ma‘lumki, yangi bilimlarni o‘rganish miyani charxlaydi. Biz miyamizni qanchalik ko‘p shug‘ullantirsak, o‘ng va chap yarimsharlar orasidagi neyronlar orasidagi o‘zaro aloqalar faollashadi. Keyinchalik qiyin, hatto imkonsiz tuyulgan muammolar ham bola uchun oddiy va aniq bo‘lib qoladi.

Mental arifmetika ilk bor XI asrda Xitoyda rivojlana boshlagan. Savdo-sotiqda hisob uchun shu uslubdan foydalanishgan. Asosiy ish Suan Pan (ya‘ni “Abakus” yoki “Soroban” ham deyiladi) yordamida amalga oshirilgan. XIV asrga kelib Koreyada, XIV asrning ikkinchi yarmiga kelib esa Yaponiyada rivojlanib bordi. 1979-yilda Xitoyda Abakus assotsiyatsiyasi tuzildi. Birinchi xalqaro olimpiada 1989 – yil Xitoyda bo‘lib o‘tdi.

Abakus lotinchadan olingan bo‘lib “hoshiya ichidagi tosh” ma‘nosini beradi. Bu atama XIV asrda Yevropadan kirib kelgan. Xitoyliklar foydalangan abakusdagi toshlar soni hozirgiga qaraganda birmuncha ko‘proq, ya‘ni tepadagi toshlar soni 2ta, pastdagi toshlar soni esa 5ta bo‘lgan. Ammo yaponlar bunga o‘zgartirish kiritishdi. 1850-yilda abakusning tepa qismidagi toshni bittaga, 1930-yilga kelib esa pastki qismdagi toshlar sonini to‘rttagacha kamaytirishdi. Shu tarzda abakus hozirgi ko‘rinishga kelgan.

Asosiy tushunchalar

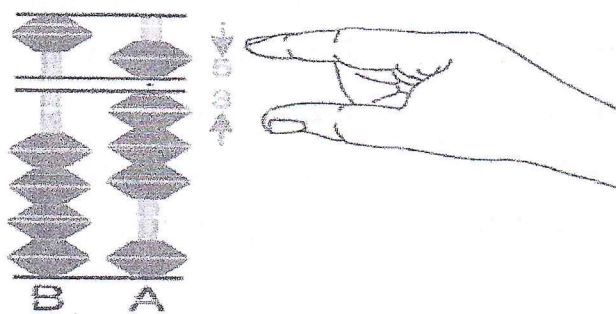
Dastlab abakus bilan tanishib chiqamiz. Abakus qismlarining nomlanishi quyidagicha:



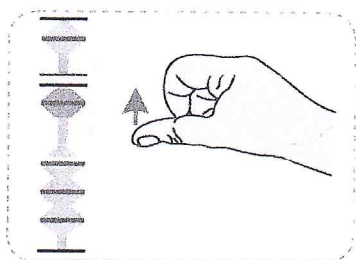
Abakusning o'ng tomondan dastlabki ustuni birlik xonasidagi sonlarni ifodalaydi. Shu tartibda chapga tomon har bir ustunda bir xonadan oshib boraveradi. (birlik, o'nlik, yuzlik, minglik, o'n minglik ...)

Abakusdan foydalanishdan oldin uning **5 ta asosiy qoidasini** yoddan chiqarmasligimiz shart. Ular quyidagicha:

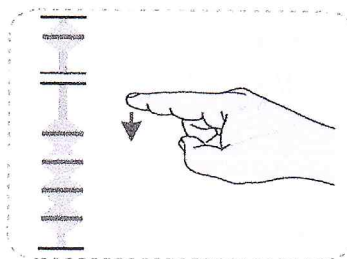
- **Birinchi qoida** – o'ng va chap qo'limizning bosh va ko'rsatkich barmoqlari abakusga sonni kiritayotgan paytimizda doimo ochiq holatda, qolgan uchchala barmoqlar yopiq holatda bo'lishi kerak.



- **Ikkinchi qoida** - birliklar xonasining pastki to'rtta toshini ko'tarish uchun o'ng qo'limizning bosh barmog'idan, xuddi shu toshlarni tushirish uchun esa o'ng qo'limizning ko'rsatkich barmog'idan foydalanamiz.

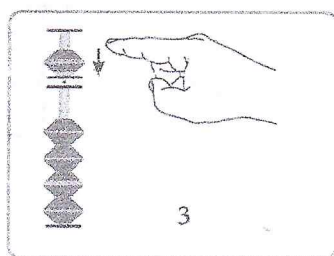


+1

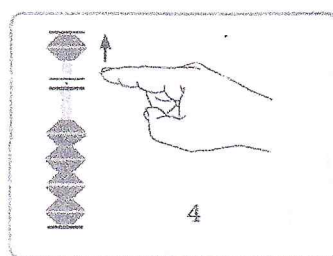


-1

Osmon qismdagi bitta toshni ko'tarib tushirish uchun esa faqatgina o'ng qo'limizning ko'rsatkich barmog'idan foydalanamiz.

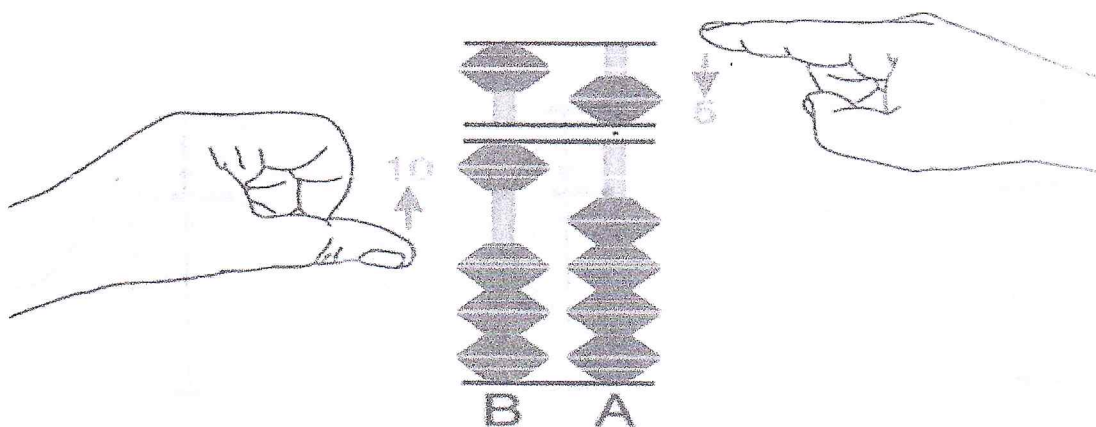


3

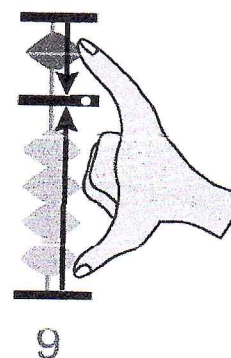
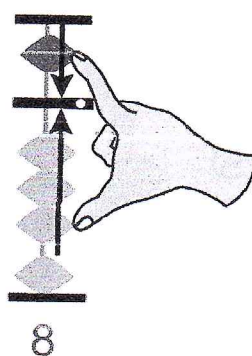
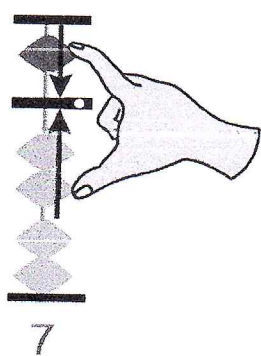
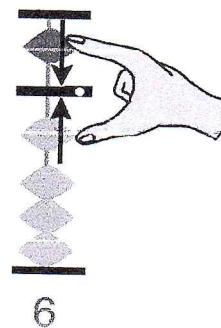
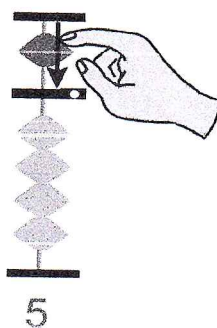
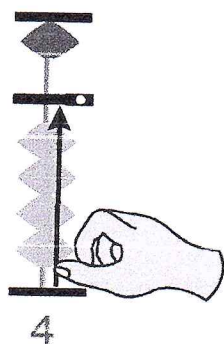
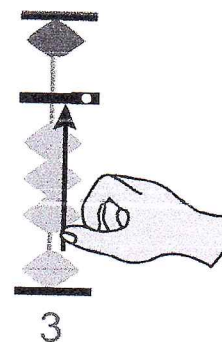
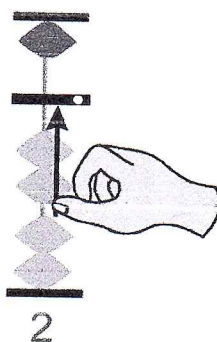
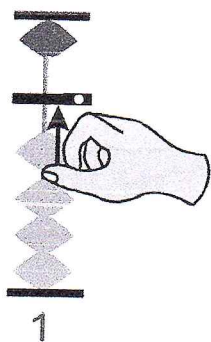


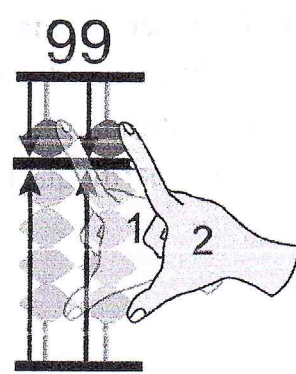
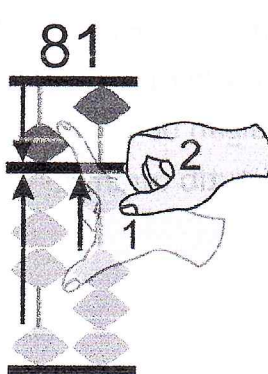
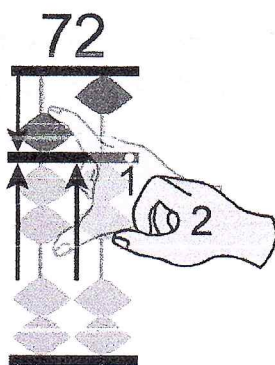
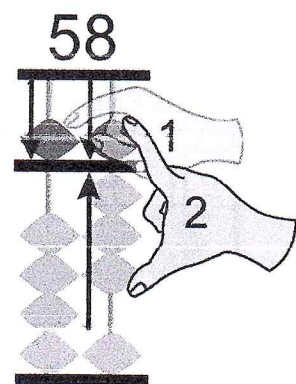
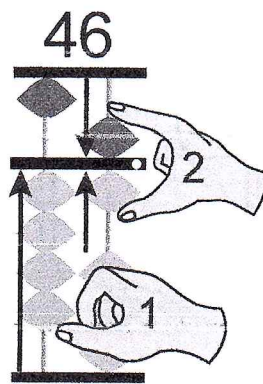
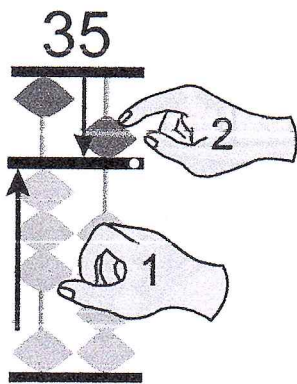
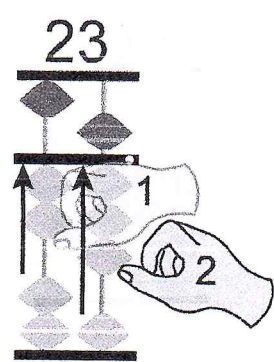
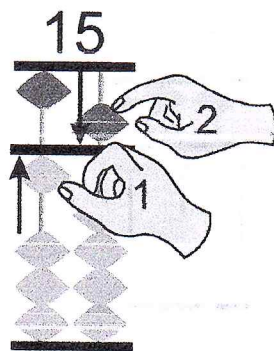
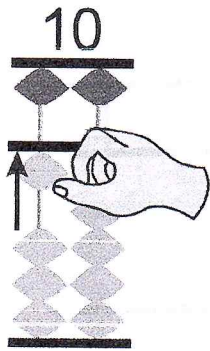
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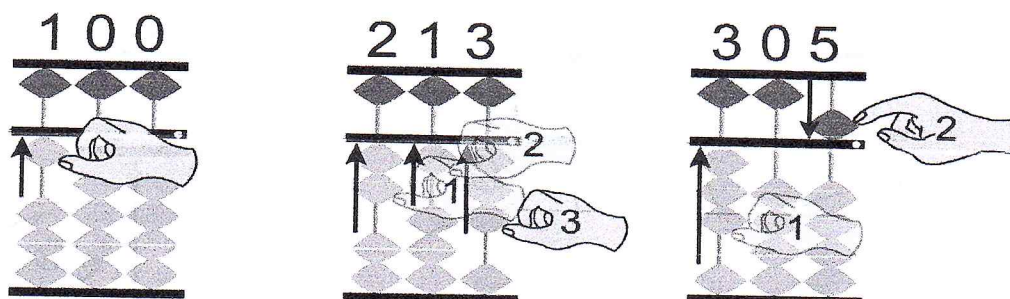
O'nliklar xonasida ishlash uchun xuddi shu amallarni chap qo'lda bajaramiz.



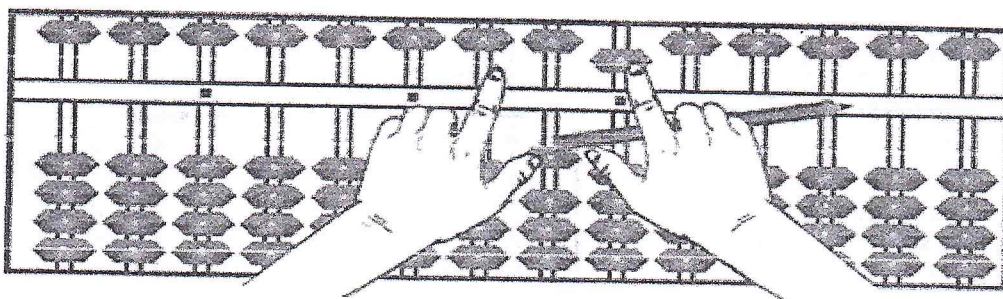
Uchinchi qoidaga o'tishdan oldin abakusdagi raqamlar bilan tanishib chiqamiz.



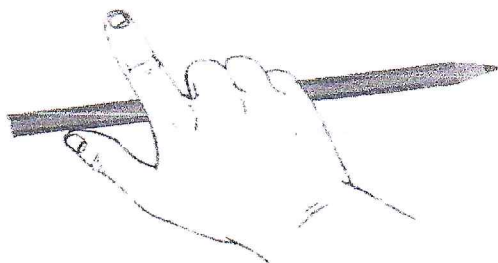




- **Uchinchi qoida** - abakusni ushlab turish. Abakusda ikki qo'l yordamida hisoblanayotgan payt abakus surilib ketmasligi uchun chap qo'lning kaft qismi bilan bosib turiladi.



- **To'rtinchi qoida** – abakusni tozalash, ya'ni nol holatiga keltirish. Buning uchun o'ng qo'limizning bosh va ko'rsatkich barmoqlarini birlashtirgan holda abakusning bulut qismi bo'ylab o'ngdan chapga tomon yurgizib chiqish kerak.
- **Beshinchi qoida** – ruchkani ushlab turish. Javobni tezlik bilan kiritish uchun ruchkani har doim qo'limizda tutib turishimiz kerak. Ruchkani gorizantal holatda hisoblashda ishlatilmaydigan uch barmoqlar (birinchi qoidada ta'kidlab o'tilgan yopiq barmoqlar) orqali tutib turamiz.



Arifmetik amallarni o'rganishni boshlaymiz!

Qo'shish va ayirish amallari

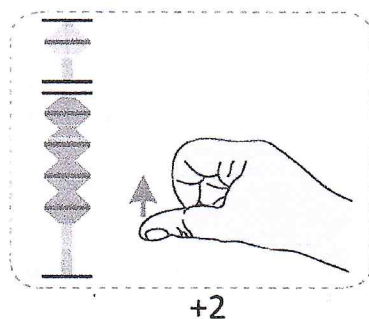
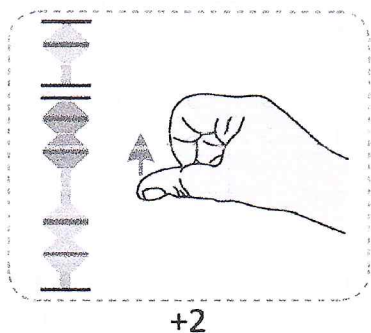
Kitobning 1-topshiriqdagi birinchi qatorda quyidagi shaklda misol berilgan:

No	1
A	2
A	2
A	-4
A	5
=	

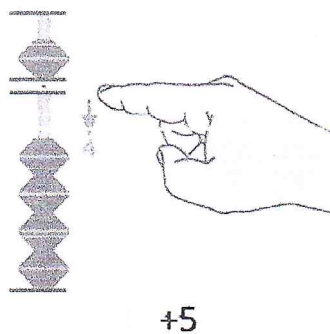
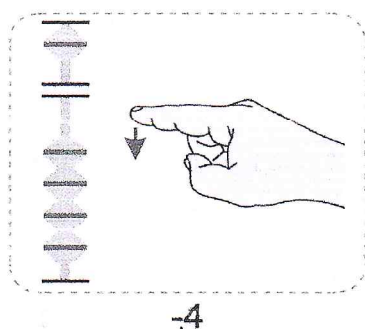
Birinchi ustundagi A belgisi misolni abakus orqali ishlash kerakligini bildiradi. Keyingi ustundan misollar berilgan. Misollar tepadan pastga qarab ishlanadi. Javob = belgisi yozilgan qatorga kiritiladi. Hisoblanayotgan son oldidan hech qanday belgi qo'yilmagan bo'lsa, qo'shish amali bajariladi. Agar son oldidan ayirish belgisi qo'yilgan bo'lsa, ayirish amali bajariladi. Demak, keltirilgan misolimizning matematik ko'rinishi mana bunday

holatda bo'ladi: $2+2-4+5=$

Bu misolni abakus yordamida hisoblaymiz. Abakus yordamida 2ni hosil qilib olamiz. Ikkinchi ishimiz unga ikkini qo'shish. Abakusning birinchi qoidasini unutmagan holda pastki toshlardan ikkitasini tepaga ko'tarish orqali 2ni qo'shamiz ($2+2$)



Keyingi ishimiz chiqqan javobdan 4 ni ayirish va 5ni qo'shish ($2+2-4+5$)



Javob:=5

Xuddi shu tarzda 1-topshiriqni abakus yordamida ishlab chiqing.

1-topshiriq

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	2	3	1	2	3	5	4	5	2	5	3	4	5	3	3
A	2	-3	5	-1	5	-5	-1	4	1	1	5	-3	3	5	-3
A	-4	5	-1	-1	-1	4	5	-5	1	-5	-5	2	1	-2	1
A	5	2	3	5	2	5	1	5	5	2	1	5	-2	1	5
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	2	1	4	5	5	5	3	2	5	2	4	3	2	3	5
A	2	2	5	4	1	4	1	-1	4	-1	5	5	5	1	1
A	5	1	-3	-2	2	-2	5	3	-4	-1	-5	-5	2	5	1
A	-3	5	1	-2	-5	1	-3	5	3	5	-3	-1	-5	-2	-2
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	5	1	5	2	4	2	1	5	2	2	4	1	1	4	3
A	3	2	1	5	-1	5	2	-5	2	5	-3	2	5	-4	5
A	1	-3	-1	1	-2	-1	5	3	-3	2	5	5	1	3	1
A	-5	5	2	-5	5	3	-5	-3	5	-1	2	-5	-2	5	-4
=															

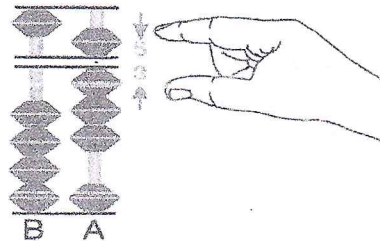
No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	5	5	4	1	4	3	1	2	4	5	3	2	5	2	3
A	3	3	5	3	-3	-1	5	1	-3	1	-1	1	1	5	5
A	1	1	-2	5	5	5	1	-3	5	2	-1	5	2	-1	-2
A	-5	-2	-5	-4	-1	2	1	5	2	1	5	1	-1	-1	-5
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	2	4	5	3	2	3	2	5	3	1	2	5	2	5	1
A	1	-1	2	-2	5	5	1	3	5	1	5	2	5	3	2
A	1	-1	-1	5	-1	-5	1	-2	1	5	1	1	2	-2	5
A	5	-1	-1	1	-5	-1	-4	-5	-4	1	1	-3	-4	-1	1
=															

Ana endi e'tiboringizni 2-topshiriqdagi ushbu misolga qarating!

No	1	2
A	1	8
A	7	-6
A	1	1
A	-4	1
A	2	-4
=		

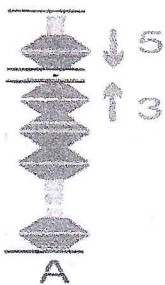
1) Abakus orqali 1 ni hosil qilib olamiz. So'ng unga 7 ni qo'shamiz. Buning uchun biz abakusning osmon qismidan 5 ni pastga tushirib, yer qismidagi toshlardan 2 tasini yuqoriga ko'tarishimiz kerak.



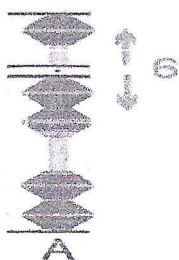
Undan so'ng abakusimiz ushbu holatga keladi.

Chiqqan javobga 1 ni qo'shib, 4 ni ayirib, 2 ni qo'shib qo'yamiz. Javob: 7

2) Ikkinchi misolda avvalo 8ni hosil qilib olamiz:



Undan 6ni ayirish uchun tepadan bitta, ya'ni 5ni va pastdan bitta toshni ayiramiz.



Shunda abakusimiz ushbu holatga keladi. Keyin qolgan amallarga o'tamiz $+1+1-4=0$

6,7,8 sonlarini qo'shib ayirish ham xuddi yuqorida ko'rsatilgandek bajariladi.

2-topshiriq

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	1	8	1	9	6	7	2	2	7	3	6	8	2	7	1
A	7	-6	2	-2	2	1	1	6	-6	5	2	-7	6	-6	1
A	1	1	1	1	-7	1	5	-5	1	-6	1	-1	-3	3	1
A	-4	1	-4	1	6	-2	-7	6	2	5	-8	1	1	5	6
A	2	-4	8	-8	1	-5	1	-7	-4	1	2	5	-5	-2	-5
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	4	8	2	7	6	5	2	7	8	9	4	6	2	5	2
A	-2	-6	7	2	2	3	7	-6	-6	-6	5	-6	5	3	1
A	6	-1	-4	-5	-3	-6	-6	8	5	1	-7	4	2	1	1
A	-5	3	3	-2	-5	7	-3	-4	-7	-2	1	5	-5	-3	-3
A	1	-4	1	7	7	-9	4	3	6	5	1	-7	-4	-5	6
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	2	4	6	9	2	2	9	1	4	9	4	6	2	1	4
A	1	-3	-1	-6	-1	-1	-5	7	-3	-5	-3	-5	6	6	-2
A	-1	5	-5	-1	6	8	-2	-5	7	-2	6	7	-3	-5	6
A	6	-6	2	-2	2	-7	6	1	-6	7	1	-3	2	7	-7
A	1	7	6	8	-9	2	-7	5	2	-9	-7	1	2	-8	5
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	2	3	6	8	9	2	2	7	8	4	6	3	1	7	3
A	7	5	-5	1	-3	7	7	-6	-6	5	3	1	7	-6	-1
A	-2	-1	1	-3	2	-6	-6	8	5	-6	-4	5	1	1	6
A	-6	-6	6	2	-7	5	-3	-4	-7	-2	2	-6	-6	5	-5
A	5	2	1	-6	8	-1	5	3	4	7	-6	-1	-1	1	1
A	1	5	-5	1	-2	-1	4	-5	-3	-5	1	-1	5	-5	5
=															

3-topshiriqdan boshlab abakusning o'nlik qatorini ham ishga solamiz. Abakusning 5 qoidasiga amal qilgan holda (5 qoidani qaytadan o'qib chiqing) ikki qo'lni baravar ishlatgan holda 3-5-topshiriqlarni ishlab chiqing.

3-topshiriq

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	77	66	33	33	88	55	66	11	77	88	88	99	66	99	99
A	22	22	-22	-22	-22	22	22	55	-66	-55	11	-88	22	-66	-22
A	-66	-55	77	66	11	-66	-77	11	33	-22	-44	22	11	-22	-22
A	-33	11	11	-55	-66	11	-11	11	55	-11	11	55	-33	33	33
A	11	-44	-55	22	22	77	55	-88	-88	44	33	-66	-55	55	-77
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	66	88	99	33	55	22	77	22	77	33	66	33	44	22	88
A	22	-77	-22	55	-55	-11	22	55	-66	55	-11	55	-33	22	-55
A	11	11	-11	-66	44	66	-33	22	11	-77	-55	11	55	-22	-22
A	-22	11	33	11	55	22	33	-77	22	88	44	-66	-66	66	-11
A	-77	55	-66	-22	-77	-33	-55	11	-44	-66	-33	-11	33	11	44
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	22	33	77	55	66	22	77	44	88	99	22	33	88	55	66
A	22	55	11	11	22	11	-77	-33	-77	-88	-11	66	-55	33	11
A	-44	-66	11	-11	-33	-22	88	88	11	11	66	-44	11	11	11
A	77	55	-88	22	-55	55	-66	-66	55	11	22	22	-44	-44	-33
A	-66	11	22	-11	77	-55	11	55	-66	-33	-88	-11	55	22	44
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	77	44	99	11	44	11	33	66	88	11	66	44	22	77	33
A	-22	-22	-88	33	55	11	55	-55	-22	77	-55	-11	66	-11	-11
A	44	11	11	-22	-33	11	-22	22	-55	-55	22	-11	-33	-55	66
A	-77	-33	55	66	11	55	11	-11	11	-22	-11	66	-55	22	-55
A	55	66	-77	11	-66	-66	-55	-11	55	-11	11	-55	11	-11	-11
=															

4-topshiriq

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	38	77	29	95	86	45	79	98	49	66	21	10	75	96	51
A	-25	-16	-14	-35	13	54	20	-85	-38	-15	52	28	13	-35	21
A	36	28	33	29	-48	-89	-98	26	27	28	11	51	-78	18	25
A	-44	10	-25	-77	23	39	30	-34	-13	-60	-34	-27	14	-24	-37
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	69	75	61	14	87	27	67	47	85	64	18	68	86	55	67
A	20	-60	28	15	-22	62	21	-26	-20	-53	31	11	-26	11	-51
A	-18	33	-53	-23	34	-73	-53	18	32	17	-35	-55	13	23	23
A	-20	-45	12	10	-55	13	-25	50	-15	-16	80	-24	25	-26	-35
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	92	89	62	57	45	79	81	99	87	44	76	95	78	88	16
A	-31	-28	17	22	-30	-14	15	-35	-52	50	-25	-30	-53	-78	22
A	17	37	-18	-18	24	23	-35	-54	14	-80	28	23	-15	19	-18
A	11	-46	35	25	-33	-62	-50	39	-45	25	-54	-52	35	50	55
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	44	87	66	96	89	32	13	17	86	16	26	17	18	11	13
A	55	12	23	-25	-55	15	65	11	-11	21	51	61	50	56	25
A	-43	-54	-35	18	15	-20	-22	20	22	51	-22	-22	11	20	-33
A	11	-35	40	-54	-38	-11	31	-45	-45	-33	33	13	-23	-35	41
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	76	14	54	12	16	24	65	19	32	11	14	22	13	24	83
A	-15	65	25	65	60	15	20	60	55	25	65	70	25	60	-22
A	33	-25	20	-22	-25	50	-60	-29	-21	-30	-70	-51	51	15	15
A	-50	10	-90	14	40	-75	-20	15	13	60	30	-30	-77	-66	-50
=															

5-topshiriq

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	81	17	71	47	22	43	53	92	98	23	31	44	50	22	53
A	-60	22	25	-35	67	56	20	-11	-37	25	68	55	35	52	20
A	22	50	-35	12	-52	-48	-62	-21	15	-28	-52	-27	11	10	-62
A	-32	-37	-60	15	-16	-50	13	34	23	72	-16	-50	-41	-34	13
A	66	26	66	60	28	18	15	-90	-46	-81	57	61	24	28	15
A	-27	-51	32	-51	-34	-13	-16	55	30	16	-33	-13	-60	-60	-16
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	72	97	54	20	56	33	27	67	62	22	42	24	40	11	26
A	-11	-37	25	26	23	51	-15	-55	-10	60	-31	-13	53	28	13
A	23	10	-12	52	-18	-22	62	72	-50	-32	63	53	-92	50	-18
A	-34	23	-61	-37	22	17	-54	-53	26	45	-54	-61	21	-27	51
A	42	-61	43	13	-61	20	16	15	51	-60	25	45	-10	35	-60
A	-50	-11	-38	15	26	-75	-35	-31	-69	14	-15	-13	32	-46	52
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	38	74	78	30	60	14	88	29	81	17	82	68	17	86	28
A	-26	-63	-60	18	29	35	-73	-13	-60	31	16	11	32	-15	71
A	31	52	21	-36	-38	-28	14	32	22	-46	-53	-27	-45	27	-45
A	-11	-13	-18	12	40	72	-15	-25	-32	12	-30	16	10	-73	-52
A	51	39	57	15	-31	-12	35	16	66	75	24	-18	75	24	27
A	-73	-67	-16	-27	17	-81	-47	-30	-27	-60	50	43	-60	-46	-16
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	18	97	28	71	34	16	23	86	24	14	16	18	12	23	46
A	31	-17	11	25	-13	72	-12	-25	60	15	70	60	51	65	-25
A	-46	-20	-17	-31	53	-22	63	22	-72	-23	-35	-21	15	-26	13
A	60	-50	26	-60	-64	12	-72	15	15	90	23	32	20	32	50
A	-51	36	-35	82	29	20	50	-75	60	-66	-61	-77	-70	-82	-73
A	16	52	66	10	-13	-70	35	11	-32	-20	75	80	-15	65	35
=															

Kichik do'st

Musbat

$$+1=+5-4$$

$$+2=+5-3$$

$$+3=+5-2$$

$$+4=+5-1$$

Manfiy

$$-1=-5+4$$

$$-2=-5+3$$

$$-3=-5+2$$

$$-4=-5+1$$

Ushbu formulalar "kichik do'st" deb atalib, mental arifmetikada bir xonali sonlarni ayirish va qo'shishdagi bir necha muammoli vaziyatlarda ishlatiladi, ya'ni bizga har doim ham abakus toshlari yetavermaydi. Masalan: abakusda 4 ga 1ni qo'shib ko'ring-chi?! Yana 1 ta tosh yetmayabdi, to'g'rimi? Bunday hollarda biz qo'shayotgan sonimizga qarab yuqoridagi formulalardan birini tanlab olamiz. Bizga 1 ni qo'shish kerak bo'lgani uchun (+1=+5-4) formulasidan foydalanamiz, ya'ni 4 ga 1ni qo'shish uchun 5ni qo'shib 4ni ayiramiz ($4 + 1 = 4 + 5 - 4 = ?$) Javob: 5. 1ni qo'shish formulasi faqat 4 soniga tegishli. Sababi faqatgina 4ga 1 ni qo'sha olmaymiz.

5 dan 1ni ayirib ko'ring-chi? Buning uchun siz yuqoridagi 1ni ayirish uchun ishlatiladigan formuladan, ya'ni (-1=-5+4) formulasidan foydalanib 5ni ayirib 4ni qo'shamiz. ($5 - 1 = 5 - 5 + 4 = ?$) Javob: 4. 1ni ayirish formulasi esa faqat 5 soniga tegishli.

Endi qolgan formulalarni ham qaysi sonlarga tegishli ekanligini bilish uchun quyidagicha holatga keltirib olamiz.

MUSBAT

$$4 + 1 = +5 - 4$$

$$3, 4 + 2 = +5 - 3$$

$$2, 3, 4 + 3 = +5 - 2$$

$$1, 2, 3, 4 + 4 = +5 - 1$$

MANFIY

$$5 - 1 = -5 + 4$$

$$5, 6 - 2 = -5 + 3$$

$$5, 6, 7 - 3 = -5 + 2$$

$$5, 6, 7, 8 - 4 = -5 + 1$$

Yuqoridagi formulalardan foydalanib, abakusda 6-9-topshiriqlarni ishlab chiqing!

6-topshiriq

-1=-5+4

+1=+5-4

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	4	5	6	1	2	7	8	3	1	2	2	4	8	9	9	7	2	3	4	5
A	1	-1	3	8	2	-5	-5	1	5	7	2	1	1	-5	-8	-5	7	6	1	-1
A	4	5	-5	-5	1	2	1	1	-1	-5	1	4	-4	1	5	2	-5	-4	4	-2
A	-5	-7	1	1	4	1	1	4	-1	1	3	-5	-1	4	-1	1	1	-1	-5	6
A	1	5	-1	4	-8	-1	3	-7	5	-1	-6	1	1	-7	-1	-1	2	-2	1	-5
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	3	1	4	8	9	4	5	4	5	2	3	7	9	1	4	5	8	7	6	2
A	1	3	1	-7	-4	1	-1	5	-1	7	6	2	-8	7	1	-1	1	-6	3	7
A	1	1	4	3	-1	4	-3	-7	-1	-4	-5	-4	5	-3	2	-2	-5	3	-4	-8
A	4	2	-5	1	5	-5	6	2	6	-1	1	-1	-1	-1	-6	6	1	1	-1	3
A	-7	-6	1	4	-8	1	-2	1	-4	-3	2	-2	-1	-2	3	-5	4	-1	-2	1
A	5	5	-1	-8	2	3	-1	-1	-1	5	-7	5	-3	6	1	1	-6	-3	6	4
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	4	5	6	1	2	2	1	4	8	9	5	7	6	3	5	5	4	8	9	4
A	1	-1	3	7	6	5	5	-1	-6	-7	2	-2	3	1	4	2	-3	1	-6	1
A	4	-3	-5	-3	-3	-2	-1	6	2	2	-6	-1	-8	1	-7	-1	6	-4	1	3
A	-7	8	1	-1	-1	-1	-1	-5	1	1	3	5	3	4	2	-1	-2	-1	1	-6
A	2	-5	2	-2	-2	-3	-3	1	2	4	1	-7	1	-8	1	-1	-1	-2	2	5
A	1	1	2	6	7	5	7	2	-6	-5	4	2	4	5	-1	-3	-3	7	-6	-2
A	-1	1	-7	-5	-4	-6	-3	2	3	1	-8	1	-5	-1	-3	7	6	-6	3	-1
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	5	4	1	3	7	8	1	5	6	2	1	3	4	7	8	1	5	6	9	1
A	-1	1	7	1	-6	-6	5	3	-5	6	3	5	-3	-6	1	8	4	3	-6	7
A	-3	4	-3	1	3	2	3	1	3	-3	1	1	5	3	-4	-5	-7	-4	1	-3
A	7	-7	-1	4	1	1	-5	-5	1	-1	4	-4	-1	1	-1	1	2	-1	1	-1
A	-5	2	-2	-7	2	4	1	1	4	-2	-8	-1	-1	2	-3	2	1	-2	2	-2
A	1	1	6	2	-6	-8	2	2	-7	6	4	-2	-3	2	5	-6	4	6	2	6
A	1	4	-5	1	5	5	-6	2	2	-5	-1	-2	8	-8	-6	1	-8	-5	-7	-5
=																				

7-topshiriq

$+1= +5-4$

$-1= -5+4$

$+2= +5-3$

$-2= -5+3$

Nº	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	3	4	5	7	8	9	1	5	4	6	1	8	3	4	6	8	5	3	9	1
A	2	2	-1	-1	-5	-5	3	-1	2	-2	8	-5	5	1	-2	-7	-1	6	-7	5
A	-1	-1	2	-2	2	1	1	2	-1	1	-5	1	-2	1	1	3	2	-5	5	-2
A	1	-1	-5	2	-1	1	1	-2	-1	-2	1	1	-2	-2	-2	1	3	1	-1	1
A	-2	-4	7	-5	-2	-2	-2	-4	-3	-3	-2	-2	1	-2	-1	-2	-7	-2	-2	4
=																				

Nº	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	5	6	8	1	2	1	3	6	8	9	2	1	7	5	6	1	2	3	4	5
A	-1	-2	-6	7	6	8	2	-1	-5	-5	2	6	-6	-1	-1	3	6	2	1	-2
A	2	1	4	-5	-3	-3	-1	-2	2	1	2	-2	3	2	-1	1	-5	-1	-2	5
A	-1	-2	1	2	-1	-2	2	1	-1	-2	-5	-2	1	-5	2	2	2	5	6	-7
A	-1	-2	-2	-1	2	-2	-5	1	2	5	3	6	-2	2	-5	-6	-1	-6	-8	3
A	5	5	-1	-4	-5	-2	1	-1	-1	-6	5	-7	-3	5	-1	2	-1	2	5	1
=																				

Nº	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	9	8	5	6	4	2	3	4	8	9	2	1	3	5	6	4	7	5	6	3
A	-5	-5	-2	-1	1	6	2	1	-7	-5	2	2	5	-1	-5	1	-5	-2	3	2
A	1	2	1	-1	-2	-5	-1	-2	3	1	2	2	-7	2	7	1	1	6	-5	-1
A	-1	-2	1	2	6	2	2	6	1	2	-1	4	2	-5	-3	-2	2	-7	1	-2
A	2	6	1	-5	-7	-1	2	-8	-2	-6	-1	-7	2	8	-1	5	-1	2	-2	6
A	-5	-5	-2	3	2	-2	-7	5	6	5	-3	2	-1	-6	2	-6	5	2	5	-5
A	1	1	-4	5	1	-2	1	-6	-2	-2	6	2	-4	2	-6	2	-6	-5	-2	1
=																				

Nº	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	4	6	2	7	8	3	5	4	8	9	3	4	6	1	2	1	8	3	6	5
A	2	3	6	-6	-6	1	-2	2	-3	-6	2	1	-2	5	2	5	-3	2	-2	-2
A	-5	-5	-5	5	1	1	6	-1	-1	2	-1	-2	1	-2	1	-2	-1	-1	1	6
A	3	1	2	-2	2	-2	-7	-1	2	-1	-1	6	-2	1	-2	1	2	2	-2	-7
A	1	-2	-1	1	-1	6	5	-2	-5	-2	6	-7	2	-2	5	-2	-5	-5	2	5
A	-2	6	2	-2	2	-5	-1	6	3	7	-4	6	-1	6	-7	5	3	3	-1	-1
A	-1	-7	-5	-1	-5	-2	-2	-5	1	-5	-1	-5	-2	-2	3	-5	1	5	-2	-2
=																				

8-topshiriq

$-1 = -5 + 4$

$-2 = -5 + 3$

$-3 = -5 + 2$

$+1 = +5 - 4$

$+2 = +5 - 3$

$+3 = +5 - 2$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	5	6	1	2	4	7	8	6	2	3	4	8	2	1	3	6	9	4	5	6
A	-1	-2	5	7	-2	-2	-5	-2	2	2	1	-5	6	6	2	-3	-6	1	3	-3
A	3	1	-3	-1	5	-3	2	1	2	-1	-3	2	-3	-3	2	2	3	-3	-6	5
A	-6	-2	6	-3	-3	6	-1	-2	-3	3	5	-1	-3	5	-3	-1	3	5	3	-7
A	8	6	-4	-3	1	-5	3	5	1	2	-3	3	5	-4	5	5	-5	-3	-1	5
A	-5	-5	-1	5	-2	2	-7	-1	-2	-6	-1	-5	-6	-1	-7	-6	1	-1	5	-2
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	5	6	1	4	9	5	6	2	1	3	4	5	1	3	9	7	6	5	8	9
A	-2	-2	6	1	-6	-3	3	6	6	6	1	-2	7	3	-6	-3	-3	-1	-3	-6
A	6	3	-3	-2	2	5	-7	-3	-3	-4	-2	6	-5	-2	3	1	2	3	-3	3
A	-5	-1	1	6	-1	-3	3	-3	5	-1	5	-4	2	3	-2	-3	-1	-2	5	-1
A	1	-1	2	-4	5	5	-1	5	-7	5	-6	-1	-1	-5	5	5	5	-2	-3	-1
A	-1	-5	2	-1	-2	-6	5	-3	1	-7	3	-3	-4	2	-7	-1	-8	-2	5	5
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	4	5	1	3	8	9	4	1	3	2	5	6	8	7	3	1	5	6	2	1
A	1	-2	6	3	-3	-7	1	6	6	6	-2	-3	-5	-2	2	5	-1	-3	6	5
A	-2	6	-3	-2	-3	3	-3	-3	-4	-3	6	2	2	-3	-1	-3	3	2	-3	-2
A	3	-5	5	3	5	-1	5	1	-1	-3	-4	-1	-1	6	3	6	-6	-1	-3	-2
A	1	1	-7	-5	-3	5	-3	2	5	5	-1	5	3	-5	2	-4	8	5	5	3
A	-3	-1	1	1	5	-1	5	2	-7	-3	-3	-6	-5	2	-6	-1	-5	-6	-6	-1
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	4	2	1	7	9	3	2	1	4	5	6	8	2	3	4	9	1	2	5	6
A	1	6	6	-3	-6	3	5	6	1	-2	-3	-5	2	3	1	-7	3	6	-1	-3
A	-3	-3	-3	1	3	-2	-3	-3	-3	6	2	2	1	-2	-3	3	2	-3	5	2
A	5	-3	5	-3	-1	3	5	1	5	-5	-1	-1	-3	5	6	-1	-1	-3	-2	-1
A	-3	5	-7	5	-1	-5	-4	2	-3	1	5	3	5	-5	-3	5	-5	5	-3	5
=																				

9-topshiriq

$-1= -5+4$

$-2= -5+3$

$-3= -5+2$

$-4= -5+1$

$+1= +5-4$

$+2= +5-3$

$+3= +5-2$

$+4= +5-1$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	5	4	1	5	6	2	4	1	3	5	6	7	8	9	1	9	8	7	5	6
A	-2	4	4	-1	-3	4	1	4	5	-1	-2	-3	-4	-7	6	-4	-3	-5	-4	-2
A	4	-6	1	3	2	-3	-2	2	-4	3	1	1	5	3	-3	-4	-3	3	5	3
A	-2	2	-3	-6	-1	5	3	-4	1	-3	2	-2	-2	-1	2	5	5	-1	-3	2
A	-1	-3	1	4	5	-6	-6	2	-3	5	-4	5	-4	-3	-5	-3	-4	4	5	-1
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	4	5	6	1	3	7	5	1	6	9	8	3	5	7	2	1	6	9	7	2
A	2	-4	-4	4	3	-4	-1	4	-2	-6	-6	4	2	-6	2	7	-1	-3	-5	7
A	-3	5	3	-2	-5	5	5	-2	1	4	2	-2	-4	4	2	-4	-1	-3	4	-3
A	5	-2	-1	4	4	-6	-2	5	4	-3	2	-1	2	-3	-3	1	5	6	-3	-3
A	-4	5	5	-6	-3	3	-4	-4	-7	5	-4	5	-1	5	5	-2	-6	-2	5	6
A	1	-7	-8	4	5	-1	2	-4	3	-6	5	-6	5	-2	-4	5	2	-4	-6	-4
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	6	5	8	9	6	4	1	2	3	9	5	4	7	6	5	2	5	1	6	4
A	-4	-1	-3	-7	-3	4	4	2	3	-6	2	2	-4	-2	2	7	2	7	-1	4
A	3	3	-3	3	2	-6	2	2	-5	4	-4	-3	5	1	-4	-3	-4	-4	-1	-6
A	-1	-3	5	-1	-1	2	-4	-3	4	-3	2	5	-6	4	2	-3	2	1	5	2
A	5	5	-4	-3	5	-3	2	5	-3	5	-1	-4	3	-7	-1	6	-1	-2	-6	-3
A	-7	-6	-1	5	-2	5	-1	-4	5	-6	5	1	-1	3	5	-4	5	5	2	5
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	6	2	4	7	9	3	4	5	2	1	6	5	4	9	8	5	1	6	2	4
A	-1	7	1	-4	-6	4	1	-1	4	7	-1	2	2	-6	-3	-1	4	-4	2	4
A	-1	-3	2	5	4	-2	-2	5	-3	-4	-1	-4	-3	4	-3	3	2	3	2	-6
A	5	-3	-4	-6	-3	-1	5	-2	5	1	5	2	5	-3	5	-3	-4	-1	-3	2
A	-6	6	2	3	5	5	-4	-4	-4	-2	-6	-1	-4	5	-4	5	2	5	5	-3
A	2	-4	-1	-1	-6	-6	-4	2	1	5	2	5	1	-6	-1	-6	-1	-8	-4	5
=																				

8-topshiriq

$$-1 = -5 + 4$$

$$-2 = -5 + 3$$

$$-3 = -5 + 2$$

$$+1 = +5 - 4$$

$$+2 = +5 - 3$$

$$+3 = +5 - 2$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	5	6	1	2	4	7	8	6	2	3	4	8	2	1	3	6	9	4	5	6
A	-1	-2	5	7	-2	-2	-5	-2	2	2	1	-5	6	6	2	-3	-6	1	3	-3
A	3	1	-3	-1	5	-3	2	1	2	-1	-3	2	-3	-3	2	2	3	-3	-6	5
A	-6	-2	6	-3	-3	6	-1	-2	-3	3	5	-1	-3	5	-3	-1	3	5	3	-7
A	8	6	-4	-3	1	-5	3	5	1	2	-3	3	5	-4	5	5	-5	-3	-1	5
A	-5	-5	-1	5	-2	2	-7	-1	-2	-6	-1	-5	-6	-1	-7	-6	1	-1	5	-2
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	5	6	1	4	9	5	6	2	1	3	4	5	1	3	9	7	6	5	8	9
A	-2	-2	6	1	-6	-3	3	6	6	6	1	-2	7	3	-6	-3	-3	-1	-3	-6
A	6	3	-3	-2	2	5	-7	-3	-3	-4	-2	6	-5	-2	3	1	2	3	-3	3
A	-5	-1	1	6	-1	-3	3	-3	5	-1	5	-4	2	3	-2	-3	-1	-2	5	-1
A	1	-1	2	-4	5	5	-1	5	-7	5	-6	-1	-1	-5	5	5	5	-2	-3	-1
A	-1	-5	2	-1	-2	-6	5	-3	1	-7	3	-3	-4	2	-7	-1	-8	-2	5	5
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	4	5	1	3	8	9	4	1	3	2	5	6	8	7	3	1	5	6	2	1
A	1	-2	6	3	-3	-7	1	6	6	6	-2	-3	-5	-2	2	5	-1	-3	6	5
A	-2	6	-3	-2	-3	3	-3	-3	-4	-3	6	2	2	-3	-1	-3	3	2	-3	-2
A	3	-5	5	3	5	-1	5	1	-1	-3	-4	-1	-1	6	3	6	-6	-1	-3	-2
A	1	1	-7	-5	-3	5	-3	2	5	5	-1	5	3	-5	2	-4	8	5	5	3
A	-3	-1	1	1	5	-1	5	2	-7	-3	-3	-6	-5	2	-6	-1	-5	-6	-6	-1
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	4	2	1	7	9	3	2	1	4	5	6	8	2	3	4	9	1	2	5	6
A	1	6	6	-3	-6	3	5	6	1	-2	-3	-5	2	3	1	-7	3	6	-1	-3
A	-3	-3	-3	1	3	-2	-3	-3	-3	6	2	2	1	-2	-3	3	2	-3	5	2
A	5	-3	5	-3	-1	3	5	1	5	-5	-1	-1	-3	5	6	-1	-1	-3	-2	-1
A	-3	5	-7	5	-1	-5	-4	2	-3	1	5	3	5	-5	-3	5	-5	5	-3	5
=																				

9-topshiriq

$-1= -5+4$

$-2= -5+3$

$-3= -5+2$

$-4= -5+1$

$+1= +5-4$

$+2= +5-3$

$+3= +5-2$

$+4= +5-1$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	5	4	1	5	6	2	4	1	3	5	6	7	8	9	1	9	8	7	5	6
A	-2	4	4	-1	-3	4	1	4	5	-1	-2	-3	-4	-7	6	-4	-3	-5	-4	-2
A	4	-6	1	3	2	-3	-2	2	-4	3	1	1	5	3	-3	-4	-3	3	5	3
A	-2	2	-3	-6	-1	5	3	-4	1	-3	2	-2	-2	-1	2	5	5	-1	-3	2
A	-1	-3	1	4	5	-6	-6	2	-3	5	-4	5	-4	-3	-5	-3	-4	4	5	-1
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	4	5	6	1	3	7	5	1	6	9	8	3	5	7	2	1	6	9	7	2
A	2	-4	-4	4	3	-4	-1	4	-2	-6	-6	4	2	-6	2	7	-1	-3	-5	7
A	-3	5	3	-2	-5	5	5	-2	1	4	2	-2	-4	4	2	-4	-1	-3	4	-3
A	5	-2	-1	4	4	-6	-2	5	4	-3	2	-1	2	-3	-3	1	5	6	-3	-3
A	-4	5	5	-6	-3	3	-4	-4	-7	5	-4	5	-1	5	5	-2	-6	-2	5	6
A	1	-7	-8	4	5	-1	2	-4	3	-6	5	-6	5	-2	-4	5	2	-4	-6	-4
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	6	5	8	9	6	4	1	2	3	9	5	4	7	6	5	2	5	1	6	4
A	-4	-1	-3	-7	-3	4	4	2	3	-6	2	2	-4	-2	2	7	2	7	-1	4
A	3	3	-3	3	2	-6	2	2	-5	4	-4	-3	5	1	-4	-3	-4	-4	-1	-6
A	-1	-3	5	-1	-1	2	-4	-3	4	-3	2	5	-6	4	2	-3	2	1	5	2
A	5	5	-4	-3	5	-3	2	5	-3	5	-1	-4	3	-7	-1	6	-1	-2	-6	-3
A	-7	-6	-1	5	-2	5	-1	-4	5	-6	5	1	-1	3	5	-4	5	5	2	5
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	6	2	4	7	9	3	4	5	2	1	6	5	4	9	8	5	1	6	2	4
A	-1	7	1	-4	-6	4	1	-1	4	7	-1	2	2	-6	-3	-1	4	-4	2	4
A	-1	-3	2	5	4	-2	-2	5	-3	-4	-1	-4	-3	4	-3	3	2	3	2	-6
A	5	-3	-4	-6	-3	-1	5	-2	5	1	5	2	5	-3	5	-3	-4	-1	-3	2
A	-6	6	2	3	5	5	-4	-4	-4	-2	-6	-1	-4	5	-4	5	2	5	5	-3
A	2	-4	-1	-1	-6	-6	-4	2	1	5	2	5	1	-6	-1	-6	-1	-8	-4	5
=																				

Kichik do'st formulalari nafaqat bir xonali sonlar uchun, balki ikki, uch va undan yuqori xonali sonlar uchun ham kerak bo'ladi. Buning uchun biz formulalar oldida nol bor deb tasavvur qilsak bo'lgani. Misol tariqasida ushbu formulani olaylik, $(+3=+5-2)$ bu formula 2,3,4 sonlariga tegishli edi. Endi ularning oldiga hayolan bittadan 0 ni yoki 2ta no'lni qo'shib qo'yamiz. Quyidagidek holatga keladi:

$$20,30,40 +30=+50-20 \quad \text{yoki} \quad 200,300,400 +300=+500-200$$

Bundan ko'rinadiki biz o'rgangan formulalarni abakusning o'nlik, yuzlik va boshqa xonalarida ham foydalanishimiz mumkin.

Ana endi tasavvuringizni ishga solib, kichik do'st formulalari ishtirok etgan ikki xonalik misollarni abakus yordamida ishleng.

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	50	40	10	50	60	20	40	10	30	50	60	70	80	90	10
A	-20	40	40	-10	-30	40	10	40	50	-10	-20	-30	-40	-70	60
A	40	-60	10	30	20	-30	-20	20	-40	30	10	10	50	30	-30
A	-20	20	-30	-60	-10	50	30	-40	10	-30	20	-20	-20	-10	20
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	90	80	70	50	60	40	50	60	10	30	70	50	10	60	90
A	-40	-30	-50	-40	-20	20	-40	-40	40	30	-40	-10	40	-20	-60
A	-40	-30	30	50	30	-30	50	30	-20	-50	50	50	-20	10	40
A	50	50	-10	-30	20	50	-20	-10	40	40	-60	-20	50	40	-30
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	80	30	50	70	20	10	60	90	70	20	20	60	40	20	60
A	-60	40	20	-60	20	70	-10	-30	-50	70	30	-30	10	20	-20
A	20	-20	-40	40	20	-40	-10	-30	40	-30	-40	10	-20	30	10
A	20	-10	20	-30	-30	10	50	60	-30	-30	10	10	40	-10	-20
=															

10-topshiriq

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	11	22	33	44	55	66	77	88	66	99	23	22	57	78	41
A	44	22	33	11	-11	-22	-33	-44	-33	-55	21	44	-25	-5	14
A	-22	11	-22	-33	33	11	22	22	-11	11	31	-51	24	14	-34
A	33	-33	11	44	-44	-44	-11	-11	44	44	-32	-11	-3	-13	52
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	24	42	54	16	55	59	63	32	78	46	68	25	41	11	25
A	31	22	-13	43	21	-14	14	14	-27	-12	-24	41	17	73	-11
A	-43	12	24	-32	-14	-21	-23	-13	44	21	32	-31	-34	-62	32
A	-12	-33	-34	10	-32	33	-24	24	-32	-34	-13	52	12	34	13
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	47	26	37	55	23	12	26	12	89	78	12	24	27	47	79
A	11	-13	-23	-21	32	12	21	42	-44	-35	64	24	-13	-24	-46
A	-14	32	21	42	31	32	-13	32	-14	14	-42	-16	-13	43	31
A	23	12	-12	-13	-42	-23	31	-13	32	-23	11	43	34	-32	-32
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	23	48	67	12	87	85	97	55	64	79	48	29	86	18	27
A	33	11	-21	42	-65	-21	-32	-11	31	-15	-13	-15	-11	60	-12
A	-14	-36	32	-32	34	31	-51	31	-50	31	-31	31	-51	-23	-11
A	24	42	-44	24	-43	-41	35	-52	13	-70	45	13	65	-11	35
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	92	89	76	24	67	57	44	37	25	16	32	78	46	47	59
A	-32	-35	-16	21	-52	-12	51	-12	-21	53	14	-27	-12	-24	-14
A	35	31	15	-45	30	-31	-20	-11	35	-15	-13	44	21	43	-21
A	-41	-30	-51	31	-21	25	11	31	-27	31	24	-32	-34	-32	33
=															

Katta do'st

Quyida berilgan formulalar "Katta do'st" deb ataladi. Esingizda bo'lsa, 5 bizning kichik do'stimiz edi. Nima uchun? Chunki doimo bizga kerakli son yetmaganda biz 5 sonidan yordam so'rar edik. Ana endi biz biroz kattaroq son, ya'ni 10 sonidan yordam olamiz. Chunki 9 ga 1ni qo'shish uchun $(+1=+5-4)$ formulasidan foydalana olmaymiz. Sababi 9 soni 1ni qo'shish formulasiga tegishli emas edi. Qanday qilib 9ga 1ni qo'shamiz degan savolga quyidagi formulalardan javob topamiz.

Musbat	Manfiy
9 $+1=+10-9$	10... $-1=-10+9$
8,9 $+2=+10-8$	10... $-2=-10+8$
7,8,9 $+3=+10-7$	10... $-3=-10+7$
6,7,8,9 $+4=+10-6$	10... $-4=-10+6$
5,6,7,8,9 $+5=+10-5$	10... $-5=-10+5$
4,5,6,7,8,9 $+6=+10-4$	10... $-6=-10+4$
3,4,5,6,7,8,9 $+7=+10-3$	10... $-7=-10+3$
2,3,4,5,6,7,8,9 $+8=+10-2$	10... $-8=-10+2$
1,2,3,4,5,6,7,8,9 $+9=+10-1$	10... $-9=-10+1$

Katta do'st formulalari shulardan iborat. Qaysi sonlarga tegishli ekanligi ham ko'rsatilgan. Ammo manfiy tomonda 10... shaklidagi raqamga e'tiboringizni qarating. Bu formulalar 10 va undan yuqori sonlarga tegishli degan ma'noni anglatadi. Bunday sonlar ko'p bo'lgani uchun shu shaklda berilgan.

Yuqoridagi formulalardan foydalanib, abakusda 11-28-topshiriqlarni ishlab chiqing!

11-topshiriq

+9=+10-1

N ^o	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	1	7	5	4	8	9	4	7	6	3	3	4	6	7	6	8	4	7	3	1
A	8	-1	-4	9	-6	9	9	-3	-3	-1	9	2	-5	9	9	-4	3	9	9	9
A	9	9	9	1	9	-2	6	9	9	9	7	9	9	-3	-2	9	9	9	4	3
=																				

N ^o	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	8	3	5	9	9	2	3	9	4	1	3	1	8	1	1	3	2	5	7	7
A	-5	9	-2	-7	-6	4	9	9	-2	8	-1	9	-4	7	5	9	9	-1	-1	9
A	9	6	9	9	9	9	5	9	9	9	9	3	9	9	9	7	8	9	9	-3
=																				

N ^o	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	3	9	1	8	4	9	4	9	3	8	1	4	4	9	8	2	6	1	2	7
A	9	9	8	-4	2	-7	9	-6	9	-5	9	5	2	9	9	9	-4	9	1	9
A	4	-2	9	9	9	9	1	9	5	9	7	9	9	-6	2	6	9	5	9	-5
=																				

N ^o	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	2	8	8	4	8	6	5	4	5	5	4	5	5	7	2	5	9	6	4	7
A	9	-6	-4	9	9	-4	3	4	-2	-2	9	-3	-1	-3	9	-4	9	-2	3	9
A	4	4	9	3	9	9	9	9	9	4	3	9	9	9	6	9	-4	9	9	-3
=																				

N ^o	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	7	3	9	2	7	6	9	5	6	8	4	6	3	5	7	3	8	8	2	9
A	-4	3	-6	4	9	9	9	-3	9	9	3	-4	9	-2	9	3	9	-6	9	-6
A	9	9	9	9	-3	-1	-6	4	-2	2	9	9	4	9	-3	9	9	9	4	9
=																				

N ^o	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	3	5	8	6	6	2	8	4	5	9	3	8	5	6	4	5	7	6	8	7
A	3	-2	9	9	-3	9	9	9	-1	9	9	-6	-4	9	2	-1	-3	-4	9	9
A	9	9	2	-1	9	4	-4	-3	9	-4	4	9	9	-1	9	9	9	9	-4	-2
=																				

12-topshiriq

$$+8=+10-2$$

Nº	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	1	6	7	4	2	9	9	5	9	7	9	3	1	8	4	5	9	6	9	7
A	9	-2	8	8	6	8	8	3	-2	8	-2	8	7	8	8	-3	8	-3	-6	-5
A	8	8	-2	-2	8	2	-4	8	8	-5	8	4	8	-1	5	8	-2	8	8	8
=																				

Nº	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	8	3	4	7	3	6	8	8	5	8	7	9	6	6	3	4	9	6	9	8
A	-5	8	8	8	4	2	-1	8	-1	8	-3	8	-2	-3	8	8	-5	-2	8	8
A	8	5	4	2	8	8	8	9	8	-5	8	-1	8	8	4	3	8	8	9	2
=																				

Nº	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	8	6	2	7	3	2	8	3	6	4	3	9	6	5	4	1	5	4	6	7
A	9	9	6	-4	3	3	-4	6	-4	1	4	-2	-2	-3	4	8	-2	4	-3	9
A	8	-1	8	-9	3	-1	8	8	9	-2	8	8	8	9	8	8	8	-6	8	-3
A	-5	8	-3	8	8	8	4	9	8	8	-3	4	4	8	-2	8	-1	8	8	8
=																				

Nº	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	7	8	4	8	1	7	6	3	6	9	6	8	8	4	5	9	4	7	9	5
A	8	-4	5	8	4	-3	-3	4	-2	8	-4	-5	-6	3	-1	-6	5	8	8	-2
A	-2	8	-6	9	-2	8	8	-3	4	8	8	8	8	8	8	8	8	-2	-6	8
A	8	7	8	-3	8	9	9	8	8	-2	9	4	8	-1	3	9	-3	9	9	4
=																				

Nº	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	8	7	1	3	7	6	3	4	5	8	9	8	3	2	4	7	6	7	7	9
A	-4	-4	7	-2	-3	-3	4	4	4	-4	9	9	8	2	8	-4	-2	8	8	8
A	8	8	8	8	8	8	8	8	8	9	8	-3	5	8	3	8	8	-4	-1	-3
A	9	7	-2	9	4	9	-2	9	9	8	9	8	9	4	-1	4	4	9	8	2
=																				

13-topshiriq

$$+7=+10-3$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	5	4	4	9	4	3	9	2	5	8	2	5	8	9	3	1	6	2	5	4
A	-1	4	9	-6	7	6	-1	7	4	-4	6	-2	7	7	1	8	-3	7	4	7
A	7	7	7	7	4	7	7	7	7	7	7	7	-3	-4	7	7	7	7	7	8
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	4	1	8	9	4	8	9	2	5	8	2	5	8	9	3	5	6	1	4	9
A	-1	3	7	-6	7	7	-1	7	4	-4	6	-2	7	7	1	-1	-3	8	9	9
A	7	7	-5	7	3	3	7	7	7	7	7	7	-5	-6	7	7	7	7	7	7
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	6	2	3	9	7	5	3	3	6	5	6	1	9	8	4	4	6	5	3	5
A	2	2	5	-5	2	3	1	7	3	4	-4	7	7	7	7	4	-2	3	7	-2
A	7	7	7	7	7	7	7	8	7	7	7	7	-4	-3	8	7	7	7	8	7
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	9	8	3	2	4	7	3	8	7	2	6	8	2	4	6	9	1	5	7	6
A	7	9	7	7	7	-4	6	-6	-6	7	-3	-5	6	4	2	8	8	-1	2	-3
A	-3	-3	5	7	3	8	7	4	4	-8	7	7	7	7	7	-4	7	9	-6	7
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	2	9	1	8	4	4	6	5	3	5	9	8	3	2	4	7	6	5	3	5
A	4	-7	3	7	7	4	-2	3	7	-2	7	9	7	7	7	-4	3	3	7	-2
A	-5	4	4	-3	8	7	7	7	7	7	-3	-3	5	7	7	7	7	7	8	7
A	4	-5	-6	9	8	-2	9	-1	-1	9	8	7	-1	-2	-4	9	9	-1	9	9
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	9	8	3	4	4	7	6	8	7	9	4	2	8	8	4	3	6	8	7	9
A	7	9	7	7	7	-4	3	7	9	7	4	4	7	-5	8	6	3	7	9	7
A	-3	-3	5	7	3	8	7	-4	-3	-2	7	-2	-2	7	4	7	7	-1	-3	-2
A	8	7	-1	-2	7	9	9	9	7	8	-2	7	9	7	9	-2	9	8	7	8
=																				

14-topshiriq

$$+6=+10-4$$

N ^o	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	9	6	9	5	4	1	9	1	8	2	4	8	1	6	7	4	2	9	9	1
A	9	-2	-5	4	6	8	6	3	-4	7	6	9	3	9	8	5	7	7	-5	8
A	1	6	6	6	8	6	3	6	6	6	-3	6	-1	-1	6	-5	-2	6	-5	
A	6	2	1	-2	-7	-1	7	2	7	-2	-3	6	8	6	6	-4	6	6	7	6
=																				

N ^o	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	2	9	7	4	8	7	8	9	8	8	4	9	4	9	8	6	8	7	6	9
A	7	6	2	6	8	-5	-4	6	-5	7	5	-5	6	-6	-5	-4	-4	2	-4	-7
A	6	3	6	8	-2	2	6	3	1	-1	6	6	7	3	3	3	3	-6	3	3
A	-1	-6	-5	9	6	6	4	9	6	6	-5	8	9	3	-4	-4	-6	3	3	-5
=																				

N ^o	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	9	6	7	1	9	8	4	9	9	8	1	4	1	9	5	4	1	5	1	4
A	7	9	8	4	6	-4	6	6	6	9	8	6	8	9	4	6	3	4	3	6
A	-2	4	-1	-1	1	6	8	-3	-1	-3	-5	6	6	1	6	8	6	6	6	8
A	6	6	6	6	9	7	-5	8	5	6	6	-3	-1	6	-2	-7	8	-2	2	-7
=																				

N ^o	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	5	4	7	8	1	9	9	9	1	7	8	9	4	2	8	9	8	9	8	6
A	-1	5	-5	-4	3	6	-5	9	8	2	-4	7	6	7	8	-5	-4	-6	7	9
A	6	6	2	6	6	-2	6	1	-5	6	6	-2	8	6	-2	6	3	3	-1	4
A	7	-1	6	7	8	7	1	6	6	-5	7	6	-7	-1	6	8	-6	3	6	6
=																				

N ^o	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	9	6	7	8	6	8	9	4	9	8	8	9	8	7	8	4	7	9	2	1
A	-7	3	2	-4	-4	-5	-6	6	-5	7	-5	6	-4	-5	8	6	2	6	7	4
A	3	6	-6	3	3	3	7	7	6	-1	1	3	6	2	-2	8	6	3	6	-1
A	-5	-1	3	-6	-4	-4	4	9	8	6	6	9	4	6	6	9	-5	-6	-1	6
=																				

15-topshiriq

$$+5=+10-5$$

Nº	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	9	2	7	8	4	3	6	4	3	7	6	8	9	1	7	5	1	9	8	7
A	5	4	-5	5	5	6	5	4	3	5	-1	5	-2	4	5	5	7	-4	5	5
A	3	5	9	9	5	5	9	5	5	7	5	2	5	5	4	2	5	5	2	1
A	8	9	4	4	6	7	5	8	8	5	3	5	9	5	5	8	7	3	5	7
=																				

Nº	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	2	6	7	8	3	8	7	7	9	8	1	6	7	8	3	8	9	2	9	6
A	7	5	5	5	2	5	-2	5	5	5	4	5	5	5	2	5	5	4	5	5
A	5	8	9	9	5	8	5	7	9	8	5	8	9	9	5	2	2	5	-3	2
A	7	7	6	8	8	9	4	9	8	4	3	7	6	8	8	5	5	9	9	7
=																				

Nº	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	4	8	5	3	7	2	9	4	4	3	4	7	4	4	5	9	2	8	9	7
A	5	5	-3	3	5	3	8	4	7	8	3	-3	4	7	-4	-5	4	5	8	-1
A	5	3	7	5	3	5	9	5	7	4	9	1	7	4	6	3	5	8	5	5
A	5	-2	5	4	-2	8	5	2	5	5	5	5	5	5	5	5	1	7	6	2
=																				

Nº	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	2	6	5	5	8	7	7	7	8	9	9	7	6	9	8	6	9	2	5	9
A	4	5	4	4	5	-4	5	8	5	-7	8	5	5	5	-4	-3	-6	6	-1	7
A	5	4	6	7	6	7	8	5	5	4	5	3	4	2	3	2	3	8	2	5
A	7	5	5	1	7	5	8	7	9	5	4	-1	-1	5	5	5	5	5	5	8
=																				

Nº	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	8	9	5	8	8	7	7	9	1	5	4	4	6	1	7	3	9	4	6	7
A	-5	5	3	5	5	9	5	5	8	4	2	9	-4	8	5	9	-6	7	5	5
A	6	7	5	6	6	5	8	8	5	5	5	6	3	8	6	4	4	4	8	7
A	5	4	4	7	7	4	8	6	6	5	6	5	5	5	7	5	5	5	7	6
=																				

16-topshiriq

$$+4 = +10-6$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	8	7	9	2	6	8	7	9	8	9	8	7	9	9	7	6	4	7	7	6
A	4	4	4	4	4	4	4	-2	4	4	4	4	-3	8	4	3	5	4	1	4
A	4	1	-3	4	8	8	7	4	9	9	9	6	4	4	4	4	4	8	4	8
A	5	9	8	4	7	7	9	8	9	9	4	5	7	7	-3	7	8	5	3	8
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	6	7	6	9	3	1	7	5	2	3	9	1	5	6	2	9	5	8	8	6
A	4	4	4	4	5	6	4	-2	4	6	4	8	2	4	6	-3	2	4	4	4
A	7	3	9	4	4	4	9	4	4	4	7	4	4	1	4	4	4	5	9	6
A	8	6	7	5	9	8	4	4	7	8	8	7	4	4	4	7	9	8	9	5
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	9	3	6	8	4	8	9	2	8	7	8	7	8	2	7	8	9	9	7	9
A	4	4	-4	4	3	-4	4	7	4	-3	4	4	4	4	1	4	4	-2	4	4
A	8	4	7	4	4	2	3	4	7	2	4	1	5	4	9	4	8	4	9	9
A	7	7	4	4	8	4	5	3	6	4	5	8	4	9	4	5	4	4	6	3
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	3	9	8	6	2	3	3	2	3	9	6	7	4	9	5	8	7	9	7	4
A	4	8	4	5	7	6	4	6	4	4	5	9	8	4	-1	9	5	5	8	3
A	4	4	6	8	8	8	4	4	4	3	8	1	4	7	2	4	4	3	1	4
A	4	7	7	4	4	4	8	8	8	-2	4	4	4	8	4	4	4	4	4	9
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	9	7	9	9	8	7	2	8	7	8	7	8	2	9	8	4	8	6	3	9
A	4	4	-2	4	4	1	4	4	4	4	-3	4	7	4	-4	3	4	-4	4	4
A	9	9	4	8	4	9	4	5	1	4	2	7	4	3	2	4	4	7	4	8
A	3	6	4	4	5	4	9	4	8	5	4	6	3	5	4	8	4	4	7	7
=																				

17-topshiriq

$$+3 = +10 - 7$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	8	8	3	2	6	9	7	4	1	7	8	9	9	8	7	9	5	9	7	9
A	-1	3	5	7	2	-1	3	4	7	-2	3	3	-2	3	2	3	3	3	3	3
A	3	4	3	3	3	3	4	3	3	3	9	2	3	5	3	3	3	-1	9	3
A	4	5	4	9	4	9	-4	6	8	3	4	6	4	5	9	1	9	4	6	-2
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	7	9	8	7	9	7	2	4	5	1	5	5	9	5	7	7	9	7	4	7
A	3	-1	1	3	3	1	5	5	3	6	-4	4	-2	4	3	9	3	3	4	3
A	4	3	3	5	2	3	3	3	3	3	6	3	3	3	4	3	8	8	3	2
A	6	9	4	5	6	4	7	7	8	9	-4	8	4	-1	6	3	4	5	9	7
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	4	9	6	9	6	7	9	6	5	2	8	9	7	7	8	8	9	8	6	8
A	4	3	-3	3	-2	4	8	-4	-3	7	5	4	5	3	9	5	4	5	3	3
A	3	4	6	3	4	7	3	6	6	3	6	6	7	8	3	5	6	6	3	7
A	4	5	3	-1	3	3	7	3	3	5	3	3	3	3	3	3	3	3	4	8
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	1	8	6	2	9	9	4	4	8	7	7	8	4	2	9	5	8	6	9	4
A	8	3	2	7	3	-1	3	4	3	2	-4	3	8	7	-1	-1	3	2	3	3
A	3	4	3	3	3	3	3	3	6	3	6	6	5	3	3	4	4	3	3	3
A	8	5	7	3	4	4	9	8	5	8	3	4	3	9	8	-6	5	7	4	9
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	7	8	4	2	9	9	9	4	4	8	7	7	8	4	2	9	9	6	8	7
A	-4	3	8	7	3	-1	-1	3	4	3	2	-4	3	8	7	3	-1	-4	4	2
A	6	6	5	3	3	3	3	3	3	6	3	6	6	5	3	4	3	6	5	3
A	3	4	3	3	4	4	4	9	8	5	8	3	4	3	9	4	8	3	3	4
A	8	9	4	-4	3	3	5	3	3	4	4	8	9	4	4	8	3	7	5	5
=																				

18-topshiriq

$$+2 = +10 - 8$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	9	8	9	9	4	7	8	6	9	5	7	8	6	9	5	8	2	9	4	3
A	2	2	2	2	4	4	2	3	2	4	1	2	3	3	4	2	7	2	4	9
A	3	4	-1	6	2	8	9	2	5	2	2	3	2	5	2	9	2	6	2	4
A	6	7	8	5	7	2	4	9	4	4	4	7	7	4	9	4	-1	3	4	9
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	8	2	6	4	5	4	5	6	8	3	5	8	9	6	8	9	9	4	8	9
A	-6	3	9	2	-1	2	-1	-3	9	4	4	2	2	3	2	9	2	5	2	2
A	9	-1	-1	9	2	9	2	4	-4	9	2	3	7	2	9	2	6	2	6	9
A	4	9	9	-1	9	-1	9	9	9	-2	8	7	3	9	5	4	3	9	4	7
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	5	8	8	9	5	8	2	9	4	8	3	8	2	6	5	5	6	8	3	5
A	4	2	2	2	4	2	7	2	4	2	9	-6	3	9	-1	-1	-3	9	4	4
A	2	3	9	7	2	8	2	6	2	3	4	9	-1	-1	2	9	4	-4	9	2
A	8	7	3	3	9	4	-1	3	4	7	9	4	9	9	9	9	9	9	-2	8
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	4	8	4	9	5	8	8	7	4	9	5	2	2	5	3	9	7	8	6	8
A	4	2	7	2	-3	4	2	5	2	2	-3	9	4	-3	4	2	4	2	-2	4
A	2	9	7	4	7	7	8	7	2	9	7	7	3	7	9	4	7	7	4	7
A	7	6	2	-3	2	2	7	2	2	9	2	2	2	2	-3	-1	2	2	2	2
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	1	8	6	9	7	6	6	8	5	3	4	8	8	5	3	6	7	7	3	8
A	2	2	3	2	4	3	2	2	4	7	2	2	4	-2	4	3	-3	8	3	2
A	5	9	2	9	7	2	2	4	2	8	3	9	7	6	2	2	5	4	3	9
A	2	8	9	7	2	9	4	7	6	2	2	6	2	2	2	9	2	2	2	8
A	8	5	4	3	2	8	6	7	4	5	5	-3	3	-1	8	4	2	4	-1	5
=																				

19-topshiriq

$$+1 = +10 - 9$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	9	7	4	9	9	8	9	8	9	8	2	6	7	8	9	8	8	9	4	4
A	1	2	4	6	1	4	7	8	1	1	7	5	4	3	1	2	2	7	7	4
A	5	1	1	4	7	7	3	3	8	1	1	8	8	8	7	5	9	3	7	8
A	-2	9	1	1	3	3	1	1	3	3	9	1	1	1	4	5	1	1	7	-3
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	3	9	4	5	7	6	8	3	4	9	9	9	9	7	8	8	6	8	7	9
A	5	2	5	3	8	5	5	8	1	1	1	7	4	9	4	1	9	4	-4	1
A	8	8	1	1	4	8	6	8	4	8	7	3	6	3	7	1	4	7	6	8
A	-3	1	7	1	1	1	1	1	1	2	5	1	1	1	1	7	1	1	1	5
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	9	9	4	4	1	9	5	7	9	4	9	9	8	8	6	3	4	9	9	9
A	1	1	-3	5	8	1	4	2	1	2	7	4	4	1	9	8	1	1	7	1
A	6	9	9	1	1	4	1	1	9	4	3	6	7	1	4	8	4	8	3	8
A	-4	-8	5	4	6	7	6	5	3	5	1	1	1	7	1	1	1	2	1	5
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	9	8	9	2	8	9	4	8	4	9	9	8	3	5	7	8	4	8	5	3
A	1	8	1	7	3	7	4	4	7	1	7	8	5	3	4	4	5	4	4	5
A	5	3	7	1	8	3	8	7	7	7	3	3	8	1	8	7	1	7	1	8
A	-2	1	3	9	1	1	-3	1	7	3	1	1	-3	1	1	3	7	1	6	-3
=																				

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	2	8	3	7	4	5	4	5	5	7	3	6	4	2	3	9	3	7	5	2
A	4	-7	8	5	8	-3	7	-2	-3	5	3	5	7	4	9	1	6	2	4	7
A	3	8	8	7	7	7	8	6	7	7	3	8	8	4	7	5	1	1	1	1
A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	7	8	6	9
A	4	4	9	6	4	8	3	5	4	7	5	5	5	9	4	7	4	3	5	-7
=																				

20-topshiriq

$$-9 = -10 + 1$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	11	22	12	33	43	36	75	88	66	34	99	67	46	32	66
A	9	-9	9	-9	-9	9	-9	-9	-9	9	-22	9	-9	-9	9
A	22	11	11	-11	-11	-10	2	-12	22	-22	9	-25	-12	60	22
A	6	9	-9	6	-9	-9	9	-9	9	5	-26	9	-9	9	-9
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	54	26	33	21	11	31	27	33	43	56	75	85	17	88	35
A	9	9	9	-9	9	-9	9	9	-9	9	-9	-9	9	9	-9
A	11	-10	-22	-9	11	11	9	55	-22	24	-9	-16	9	-11	-9
A	9	-9	9	30	9	-9	-15	-9	-9	9	-50	-9	-10	9	12
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	13	22	23	39	16	36	56	47	78	89	36	23	42	33	83
A	9	9	9	-5	9	9	9	-9	9	9	9	-9	-9	-9	-9
A	17	55	16	9	13	52	21	-25	-66	-52	-20	15	56	-14	-11
A	9	9	-9	-22	9	-9	-9	-9	-9	-9	-9	9	9	-9	-9
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	56	14	77	90	28	32	12	21	45	36	52	61	74	83	91
A	9	9	9	-9	9	-9	-9	-9	-9	-9	9	-9	9	-9	-19
A	10	25	-11	-9	-16	65	25	27	-15	59	29	25	-22	-12	-61
A	-9	-9	4	16	9	-59	-19	-19	-19	13	-69	-59	29	19	9
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	87	26	77	64	56	18	46	83	27	16	19	15	26	39	47
A	-9	-9	19	9	9	9	-9	-9	9	-9	9	-9	-9	9	-9
A	-69	61	-26	-19	-10	11	-25	-13	52	71	60	32	61	-25	-15
A	29	-59	-9	45	33	-19	69	19	-29	-69	-79	-29	19	-19	19
=															

21-topshiriq

$$-8 = -10 + 2$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	28	29	46	17	71	34	30	63	55	37	33	73	15	23	45
A	-7	8	-8	8	-8	8	-8	8	22	-8	8	8	-8	8	-8
A	-8	8	-16	-5	6	-22	6	-11	8	-17	55	6	32	6	-8
A	5	54	7	66	-8	8	-17	-8	2	-8	-8	-8	8	-12	-8
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	63	52	37	65	36	14	27	58	62	31	85	22	18	74	82
A	8	8	-8	-8	-8	8	-8	8	8	15	-8	8	20	8	-22
A	6	27	-5	21	51	8	-17	-11	22	-8	-55	15	8	15	-8
A	-8	-8	8	8	8	3	8	4	-8	11	8	-8	-16	-8	36
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	92	51	29	65	17	88	25	76	10	41	35	24	33	42	77
A	-8	18	8	-8	8	-8	52	-8	-8	-8	3	8	8	-8	8
A	5	8	-7	20	3	-8	8	-18	68	55	8	6	51	-22	11
A	8	-77	-8	-8	8	-8	4	22	5	8	52	8	-8	8	-6
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	99	44	11	14	75	31	14	28	54	12	58	17	22	77	42
A	-22	-31	-8	8	-8	9	55	8	8	-8	28	18	58	-8	-38
A	8	8	11	-2	-51	-18	8	-16	15	88	-5	-8	7	-8	8
A	-8	8	8	-8	-8	-8	8	-8	-18	-50	-18	-8	-8	-58	8
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	73	19	38	22	53	40	23	77	29	90	14	31	70	29	33
A	8	18	8	-8	8	-18	8	-8	8	-68	8	-8	-8	-8	8
A	8	-8	-18	18	16	-18	8	-58	8	-8	16	68	-8	-8	8
A	-23	-8	-19	8	8	5	-28	-8	-18	5	58	8	38	5	8
=															

22-topshiriq

$$-7 = -10 + 3$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	75	14	66	29	35	86	11	34	79	13	68	53	24	63	71
A	-7	7	-7	7	-7	-7	-7	7	7	7	7	7	7	7	-7
A	1	9	-6	-1	-7	-8	9	-1	3	6	-5	9	5	8	-4
A	7	-7	7	-7	-7	-7	7	-7	8	-7	-7	7	-7	7	-7
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	28	41	38	23	46	29	11	33	41	64	18	37	89	23	74
A	7	-7	7	7	-7	7	7	7	-7	7	7	8	-18	7	7
A	1	8	-9	4	-4	-11	7	5	-4	7	13	-7	-7	11	5
A	-7	7	-7	7	-7	-7	-9	-7	-7	7	7	-7	5	-7	-7
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	13	24	59	21	18	48	76	54	31	22	19	86	21	38	40
A	7	7	7	9	7	-25	-7	7	-7	8	7	-7	2	7	-7
A	13	15	-55	-7	4	7	-9	9	5	-7	-6	-5	7	54	8
A	7	-7	-7	6	7	7	-7	-7	7	7	-7	7	5	-77	-7
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	22	41	54	33	61	19	23	96	31	23	43	54	99	25	18
A	9	-7	7	7	-7	7	17	-7	-7	7	-19	7	-68	-7	27
A	-7	55	15	5	25	-5	4	-3	9	11	-3	7	-7	11	-5
A	-4	7	-7	-7	7	-17	-11	-57	-22	-7	-17	17	17	57	-37
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	29	74	35	52	83	24	58	33	78	41	26	37	11	86	13
A	7	7	-7	9	7	17	17	7	-9	-27	-17	-9	55	-7	7
A	52	-18	-9	25	-19	-8	4	4	20	7	9	17	-7	-18	8
A	7	27	27	-27	-17	7	7	-22	7	1	57	-7	8	-7	27
=															

23-topshiriq

$$-6 = -10 + 4$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	19	14	24	39	54	35	89	39	25	45	27	30	76	25	54
A	6	6	6	6	6	-6	6	6	-6	-25	8	-6	9	-6	6
A	14	5	9	-5	15	-15	-55	-25	6	-6	-6	7	-6	-10	-50
A	6	-6	6	-6	-6	6	-6	-6	-9	9	9	9	-55	6	-6
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	85	49	69	14	29	34	40	89	34	71	53	64	24	45	65
A	-6	-9	6	6	6	6	-6	6	6	9	7	6	6	-25	-6
A	-16	-6	-15	14	54	55	-10	-75	5	-6	10	4	9	-6	-50
A	8	5	-6	6	6	-6	6	-6	-6	8	-6	6	6	9	6
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	79	85	42	21	34	45	74	30	15	25	65	15	14	34	19
A	6	-6	-8	9	6	-6	6	-6	-6	-6	-6	-6	6	6	6
A	4	-55	6	-6	5	-25	4	50	10	-5	-50	70	54	-6	4
A	6	6	-7	55	-8	6	6	6	6	6	6	6	6	50	6
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	24	39	64	14	27	20	10	19	22	23	30	54	20	80	19
A	6	6	6	6	8	-6	-6	26	8	17	-6	6	-16	-26	6
A	-20	-15	14	25	-6	5	56	-5	-16	-6	16	14	5	-4	14
A	-6	6	6	-6	-6	16	6	-16	66	55	6	16	56	-20	6
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	34	25	20	15	9	10	4	11	15	20	39	25	45	20	10
A	6	-6	-6	-6	6	-6	6	9	-6	-6	6	-6	-26	-6	-6
A	55	7	9	9	4	5	7	-6	-5	-11	14	56	-6	19	66
A	-6	1	11	50	30	20	61	15	60	50	6	22	17	5	-16
=															

24-topshiriq

$$-5 = -10 + 5$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	25	71	42	72	29	17	34	47	80	14	5	58	90	25	42
A	5	-5	-5	-5	5	5	-5	-5	-5	-5	25	5	-5	5	-5
A	-7	9	-8	9	5	-9	7	-5	-6	6	-6	9	-8	-8	-9
A	-5	5	5	5	5	-5	5	-8	5	5	15	-5	5	-5	5
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	75	36	73	11	39	29	14	87	64	75	36	56	18	42	55
A	5	5	-5	-5	5	5	8	5	-5	5	52	5	5	-5	22
A	-7	-7	9	29	-22	9	-5	-2	18	-6	-5	-7	7	-9	5
A	-5	-5	5	5	-5	-5	8	-5	5	-5	-5	5	-5	-5	-9
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	34	15	35	81	39	21	74	72	37	44	90	64	35	25	77
A	6	5	5	-5	5	-5	-5	-5	5	-5	-5	-5	-5	5	5
A	-5	15	-16	9	-22	59	-17	18	-19	-8	-6	18	-5	-8	-8
A	12	5	-5	5	-5	5	5	5	-5	-5	5	5	-7	-5	-5
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	19	37	16	70	86	52	28	17	47	30	68	54	55	66	69
A	5	5	5	-5	5	15	15	65	-5	-15	-15	7	5	5	5
A	7	-18	15	-7	-18	1	-5	1	50	-8	21	-5	1	-15	8
A	-5	-5	5	-55	-5	15	-9	-33	-5	5	-5	9	-5	20	-25
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	27	24	23	12	57	7	68	17	29	26	11	64	26	32	44
A	5	6	9	9	25	25	5	25	5	5	-5	-5	5	-5	-15
A	8	-5	-15	-15	-5	9	8	-5	-15	-9	11	25	-8	59	5
A	-5	55	8	9	-8	-15	-15	9	8	5	5	-15	-15	5	7
=															

25-topshiriq

$$-4 = -10 + 6$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	28	63	40	16	31	28	11	76	32	26	34	23	70	37	86
A	4	-4	-4	4	-4	4	-4	4	-4	4	-5	-4	-4	4	4
A	-9	7	-8	-9	1	-9	8	-9	5	-8	4	7	2	-5	-8
A	-4	4	4	-4	4	-4	5	-4	-4	-4	-9	4	4	4	-4
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	14	61	42	68	88	31	26	73	43	62	86	11	60	57	10
A	8	-4	-4	4	4	-4	4	-4	-4	-4	4	-4	-4	4	-4
A	-4	5	-2	1	-9	5	-7	8	-3	9	-7	11	3	9	5
A	5	-4	4	-4	-4	-4	-4	4	4	4	-4	4	4	-4	-4
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	34	62	26	90	41	33	57	98	77	39	36	41	58	22	73
A	7	-4	4	-4	-4	7	4	-6	4	4	4	-4	4	-4	-4
A	-4	8	6	-8	-9	-4	9	-4	-7	-2	-24	-8	19	8	18
A	-8	4	4	-9	4	-9	-4	-9	-5	-4	9	4	-4	4	4
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	11	66	82	30	33	61	27	36	82	12	42	80	77	29	56
A	-4	4	-4	-4	-4	-4	4	4	-4	-4	-4	-4	4	4	4
A	34	-8	19	-18	50	24	-19	-24	14	64	-19	-15	-15	-14	-5
A	-7	-54	2	4	4	-8	-4	4	-9	-4	4	4	4	4	22
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	22	12	31	88	42	82	24	38	13	66	26	77	17	39	63
A	-4	-4	-4	4	-24	-4	-5	4	-4	4	4	14	14	54	-4
A	74	24	14	-35	9	14	54	-24	24	-14	-14	-4	-4	-79	14
A	-4	8	-9	4	4	-25	-4	4	-5	9	64	-28	-18	8	-14
=															

26-topshiriq

$$-3 = -10 + 7$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	77	26	88	41	37	72	62	33	28	59	23	81	37	11	58
A	3	1	3	-3	3	-5	-3	-5	9	8	5	-3	3	-3	3
A	-8	3	-9	-1	-8	3	8	3	3	3	3	9	-8	9	6
A	-3	-5	-3	3	-3	7	3	-9	-7	-6	-7	3	-3	3	3
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	42	71	34	29	66	97	28	35	13	22	73	57	61	58	34
A	-3	-3	8	3	4	-7	3	-8	-5	-3	-5	3	-3	9	-5
A	-2	9	-5	9	-3	-3	-9	3	3	9	9	2	9	3	3
A	3	3	3	-3	9	-8	-3	-6	9	3	3	-3	3	-4	9
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	88	14	28	77	85	38	70	41	19	26	42	68	39	72	69
A	-9	-5	-6	3	5	3	-3	-5	3	3	-3	-7	3	-3	3
A	3	3	-3	8	-3	-5	-9	1	8	3	-2	-3	-5	8	5
A	-4	-4	5	-3	-8	-7	3	3	-3	-8	3	9	3	3	3
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	15	27	89	25	37	19	28	88	39	11	30	78	81	62	47
A	-8	-9	3	-6	3	23	13	3	3	-3	-3	3	-3	-3	-28
A	3	3	-5	3	2	-3	-3	-23	-25	11	15	-23	-56	13	3
A	-6	-7	3	-3	-3	5	4	-3	3	3	-3	15	-3	-13	-8
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	18	36	77	69	29	83	52	66	48	27	38	57	62	41	22
A	3	-9	3	3	13	9	25	-7	-29	13	3	33	-3	-3	-3
A	-4	13	-18	-13	-8	-33	3	23	3	-8	-14	-8	28	53	20
A	53	-6	-3	-35	6	3	-13	-3	-13	-3	3	-3	3	-3	3
=															

27-topshiriq

$$-2 = -10 + 8$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	11	28	31	18	29	69	45	53	11	29	19	52	37	28	69
A	-2	2	-2	2	2	2	4	8	-2	2	2	8	-8	2	2
A	4	-3	8	-5	-3	9	-8	-2	2	9	7	-2	2	-6	-1
A	7	-2	-7	4	2	-2	-2	2	-7	-2	2	7	-5	-5	-2
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	30	81	14	33	22	51	49	30	25	32	11	43	15	19	38
A	-2	-2	6	-4	9	9	-9	-2	-6	-3	-2	-4	-7	2	2
A	8	9	-2	2	-2	-2	-2	5	2	2	5	2	2	9	-4
A	4	2	2	9	5	7	-9	7	9	9	6	-7	-9	-2	-5
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	46	33	27	54	35	48	44	18	24	38	12	54	25	37	14
A	-7	7	8	6	-6	-9	-5	2	6	2	9	5	-7	-8	-5
A	2	-2	-6	-2	2	2	2	8	-2	-9	-2	2	2	2	2
A	-7	-9	2	4	-3	-7	-4	2	-9	-2	5	-4	-8	-7	9
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	27	39	24	78	22	19	76	15	18	24	48	22	69	18	24
A	-9	2	7	-9	-3	2	-7	-6	12	7	-9	-3	2	-9	-5
A	2	-2	-2	2	2	19	2	32	-9	-12	2	22	-17	32	12
A	-2	7	16	-5	9	-22	-12	-12	-2	5	57	-19	29	-12	-2
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	68	44	39	81	64	76	45	29	77	15	28	13	95	38	68
A	12	-5	2	-2	-5	14	-6	2	-18	-6	12	18	-7	-15	22
A	-5	52	-22	12	12	-2	52	-22	2	22	-9	-2	2	7	-2
A	-9	-32	5	-7	-52	-9	-2	5	9	-2	-2	5	-22	-12	5
=															

28-topshiriq

$$-1 = -10 + 9$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	31	90	18	75	26	47	59	54	22	9	25	36	77	44	39
A	-2	-1	1	5	4	-8	1	6	-8	1	5	4	-8	-5	1
A	1	2	1	-1	-1	1	9	-1	-5	10	-1	-1	1	1	-6
A	-3	-7	-8	7	5	-2	1	5	1	-1	6	5	-2	-3	-5
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	90	27	11	28	17	31	19	26	30	24	78	37	51	90	62
A	-1	-8	9	-9	-8	-2	1	-7	-1	5	2	-8	9	-1	-5
A	7	1	-1	1	1	1	-4	1	50	1	-1	1	-1	5	12
A	-8	-5	7	-5	-3	-5	-7	-12	1	-16	7	-6	4	-72	1
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	21	77	31	19	56	24	85	64	42	39	48	12	71	53	38
A	9	-8	-2	1	5	6	5	-5	-3	1	-9	8	-2	7	2
A	-1	1	1	-6	19	-1	-1	1	1	-1	1	-1	1	-1	-1
A	6	-15	-5	7	-1	1	9	-8	-5	7	-25	6	-3	26	10
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	95	66	81	27	15	85	53	7	94	70	53	80	29	57	25
A	-28	-7	9	8	14	-26	7	63	-35	-1	37	-1	11	8	-6
A	12	1	-1	-6	1	11	11	-11	11	26	-21	11	-5	14	51
A	1	-8	5	1	-5	7	-15	22	-3	-58	16	-25	-16	11	-17
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	5	77	94	87	19	37	85	65	29	90	35	70	57	3	55
A	35	-8	-65	-8	1	-8	5	-6	1	-71	5	-11	23	27	22
A	-21	11	1	1	59	51	-21	31	50	11	-21	31	-1	-11	-8
A	51	-3	-21	-61	11	-29	11	-28	-21	-15	61	-5	11	51	11
=															

“Oila” formulalari.

Musbat

$$+6 = +10 - 5 + 1$$

$$+7 = +10 - 5 + 2$$

$$+8 = +10 - 5 + 3$$

$$+9 = +10 - 5 + 4$$

Manfiy

$$-6 = -10 + 5 - 1$$

$$-7 = -10 + 5 - 2$$

$$-8 = -10 + 5 - 3$$

$$-9 = -10 + 5 - 4$$

Oila formulalari katta va kichik do'st formulalarining qo'shilmasidan tashkil topgan. Buni misollar orqali ham ko'rishimiz mumkin: 15ga 6ni qo'shish amalini abakusda bajarish uchun katta do'st (**+6=+10-4**) formulasidan foydalana olmaymiz. Sababi bizda ayirishimiz uchun 4 yetishmaydi. Shu sababli biz oila formulalarining mosini tanlab (**+6 = +10-5 +1**) shu formula orqali misolni yecha olamiz. 15 ga 6ni qo'shish uchun avvalo 15ga 10ni qo'shamiz. (**+6 = +10-5 +1**). Keyin 5ni ayirib, 1ni qo'shamiz (**+6 = +10-5 +1**). Javob: 21

Endi xuddi shu misolni katta va kichik do'st formulalari yordamida ishlab ko'ramiz. Avvalo katta do'stdan 6ni qo'shish formulasini yodga oling (**+6 = +10 -4**). Bu yerda ham xuddi shu amal qilinadi, ya'ni avvalo 10 qo'shib olamiz va 4ni ayiramiz. Lekin 4 yetmaganligi uchun kichik do'st formulasidan foydalanamiz (**-4 = -5 +1**). Javob: 21

Shunday qilib biz oila formulasini ishlatamiz. Agar siz katta va kichik do'st formulalarini yoddan bilsangiz, oila formulasini ishlatishda qiynalmaysiz. Mana shuning uchun ham oila formulasini katta va kichik do'stlarning qo'shilmasi deb ataymiz. Ya'ni - **MIX FORMULA**.

Yuqoridagi formulalardan foydalanib, 29-30-topshiriqlarni abakus yordamida ishlab chiqing.

29-topshiriq

$$+6 = +10 - 5 + 1 \quad -6 = -10 + 5 - 1 \quad +7 = +10 - 5 + 2 \quad -7 = -10 + 5 - 2$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	37	11	24	18	25	41	36	66	32	44	21	18	44	13	32
A	6	6	-6	6	6	-6	6	6	6	-6	6	-6	-6	16	6
A	-26	16	-6	-3	16	3	-11	-16	16	-16	6	-6	-5	-2	-12
A	6	6	-6	-16	6	16	-6	6	5	-6	-26	36	-16	6	6
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	25	14	18	22	63	22	43	16	16	11	22	32	27	41	26
A	6	-6	6	6	6	6	-6	6	6	16	6	-16	6	-6	6
A	3	10	-1	-16	-2	16	-5	12	6	6	16	2	-2	-16	6
A	-6	6	-16	-6	16	-6	-16	-6	56	-26	-13	6	-16	-1	56
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	23	11	44	27	15	13	25	14	36	22	32	13	29	14	22
A	-7	6	-7	7	17	-7	7	-7	7	-7	-17	-7	-7	-7	-17
A	27	17	-15	-17	-7	27	12	37	-17	11	7	27	-17	-2	1
A	-7	-27	-7	7	4	16	-7	-7	-6	7	7	-7	27	37	27
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	15	28	36	33	17	14	37	22	14	19	26	33	37	29	31
A	7	-5	7	-7	17	-7	7	-7	-7	-7	7	-7	-7	-7	6
A	15	-17	-27	1	-2	27	-17	17	17	-7	-17	17	-15	-17	7
A	7	7	7	17	-7	5	11	17	-7	17	7	-27	17	7	-17
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	11	57	31	25	33	36	31	25	11	22	12	16	71	22	66
A	15	27	13	6	-27	7	-16	16	15	56	15	56	-16	-16	26
A	17	-12	-27	16	11	-17	21	51	56	16	16	21	41	11	-56
A	-27	-17	67	6	17	-6	26	-22	11	-42	-43	-90	-25	66	12
=															

30-topshiriq

$$+8 = +10 - 5 + 3 \quad -8 = -10 + 5 - 3 \quad +9 = +10 - 5 + 4 \quad -9 = -10 + 5 - 4$$

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	15	33	24	42	36	14	43	26	34	13	24	35	44	26	33
A	8	-8	-8	2	8	-8	-8	8	-8	-8	-8	8	-8	8	-8
A	11	18	28	-28	-28	28	-20	10	18	11	18	-18	58	-18	18
A	-8	1	-2	8	-5	-8	8	-8	5	8	-4	4	5	3	6
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	25	14	43	16	36	22	33	17	25	44	16	14	23	35	26
A	8	-8	-8	8	8	2	-8	-2	8	-8	8	-8	-8	8	8
A	11	68	51	-18	-28	-18	11	28	-18	-15	-18	10	28	1	-11
A	-8	-2	8	-5	-6	-5	8	-8	4	8	3	8	6	-18	-8
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	25	16	49	68	35	73	19	65	33	84	16	94	77	14	85
A	9	-1	-4	-3	9	6	-4	9	1	-9	8	-9	-2	-9	9
A	15	29	29	19	-39	-15	69	-14	-29	-20	-19	-50	19	29	-39
A	-9	5	-3	-4	4	-9	1	9	9	9	-5	9	-9	-1	-5
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	11	32	15	24	90	45	28	33	70	67	84	22	36	44	62
A	-6	2	9	-9	4	9	-3	1	5	-2	-9	3	-1	-9	-8
A	29	-19	-19	59	-19	-29	19	-19	19	29	19	69	39	49	-19
A	-9	-5	2	5	2	4	-2	3	-2	5	-3	-9	-2	-1	9
=															

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	12	18	44	25	64	13	11	12	84	65	74	33	15	89	10
A	52	26	-19	19	-29	11	22	21	-15	18	-18	51	21	-24	15
A	-19	-29	20	-29	20	-19	11	-28	-53	11	28	-28	58	18	58
A	22	59	39	49	39	49	-39	78	18	-38	15	18	-18	-58	-28
=															

Qo'shish ayirishga doir bilimlaringizni ishga solib, formulalar jadvaliga qaramasdan abakus yordamida 31-33-topshiriqlarni ishlab chiqing. (ikki va uch xonalik sonlarni qo'shib ayirish uchun ham xuddi shu formulalar, ya'ni katta va kichik do'st, oila formulalari ishlatiladi.)

31-topshiriq

No	1	2	3	4	5	6	7	8	9	10
A	75	79	89	86	78	82	91	105	31	44
A	68	51	96	-31	51	91	44	75	55	87
A	-17	-77	81	82	-91	-51	86	-31	-46	-91
A	98	82	94	-61	77	66	-91	46	97	35
A	-61	-31	-55	-11	-61	31	86	-71	-81	49
A	86	-46	36	98	-11	-21	-74	46	-31	12
=										

No	1	2	3	4	5	6	7	8	9	10
A	658	111	79	176	54	41	102	426	442	455
A	99	444	-22	336	96	86	98	41	71	-189
A	-41	61	34	-455	21	-61	-71	-378	85	44
A	-69	-89	59	71	-35	-44	67	71	-99	59
A	57	31	-61	87	97	13	-55	-65	31	-72
A	-91	-257	45	-35	59	59	-31	-41	64	66
=										

No	1	2	3	4	5	6	7	8	9	10
A	64	89	55	107	111	94	27	66	92	83
A	91	-41	-22	35	444	92	36	69	23	74
A	-78	38	96	-49	76	56	88	-81	-71	-51
A	98	99	-71	91	-61	-77	21	78	85	59
A	-41	81	98	79	-22	-86	-74	-61	46	26
A	-61	-72	11	-81	86	-41	-51	99	74	98
=										

32-topshiriq

No	1	2	3	4	5	6	7	8	9	10
A	612	133	414	201	125	114	365	821	524	741
A	-222	545	236	842	425	456	519	441	149	-311
A	148	-411	614	-576	-221	-224	379	-711	265	269
A	-417	147	-922	712	336	984	-711	-142	554	-511
A	-22	869	747	-608	-128	-712	-314	329	-687	942
A	55	429	-100	442	355	241	-132	493	-337	-365
=										

No	1	2	3	4	5	6	7	8	9	10
A	123	414	824	307	773	505	242	611	175	249
A	912	742	-414	873	-321	913	768	217	565	195
A	-428	363	821	213	642	339	512	287	-414	447
A	142	-912	-511	-973	868	-473	-236	-414	828	-345
A	366	-111	-363	776	413	-145	-758	-375	-543	-212
A	821	563	111	821	-713	-364	649	945	-214	347
=										

No	1	2	3	4	5	6	7	8	9	10
A	810	521	217	561	319	419	713	318	414	813
A	-571	195	651	-157	254	891	142	214	236	621
A	749	-601	581	851	-415	-162	598	475	614	-175
A	-416	318	-354	-419	342	-312	551	-321	-922	-351
A	259	735	-494	613	517	914	-613	617	747	219
A	412	-464	181	-241	976	215	-461	-745	-100	-481
=										

No	1	2	3	4	5	6	7	8	9	10
A	418	651	504	231	761	341	221	791	841	271
A	663	778	-316	385	-195	254	639	-354	-255	581
A	-471	515	281	-421	-251	644	198	714	871	-410
A	283	-399	747	917	185	-871	345	-251	-648	814
A	142	718	-961	111	531	-261	-801	-296	154	293
A	451	-214	215	-564	476	591	-219	318	471	-391
=										

33-topshiriq

No	1	2	3	4	5	6	7	8	9	10
A	913	278	423	715	340	442	853	591	223	413
A	128	-142	172	291	436	214	-241	153	423	-217
A	-915	575	165	-147	158	-531	753	-644	254	148
A	454	219	-319	526	-551	447	-591	512	-471	297
A	122	-154	535	621	363	158	-307	135	742	-254
A	-263	188	152	-235	-431	329	457	731	516	554
=										

No	1	2	3	4	5	6	7	8	9	10
A	310	798	905	615	415	312	841	941	919	415
A	827	-485	722	728	825	938	-375	615	631	285
A	-634	747	193	153	-745	749	655	194	-556	124
A	243	126	544	946	961	-455	791	-812	138	-189
A	455	-265	-155	-455	154	126	-289	341	-222	500
A	826	634	276	125	259	-456	364	615	551	513
=										

No	1	2	3	4	5	6	7	8	9	10
A	5145	6764	5933	2476	2402	2346	5685	2306	5765	6402
A	1927	-3175	1672	2949	4523	2841	-3197	1247	-4123	4789
A	6893	4473	-1362	5957	6487	-4492	4967	2291	5785	3223
=										

No	1	2	3	4	5	6	7	8	9	10
A	4173	5207	2390	1130	5877	6419	5822	6456	5810	1900
A	2442	3925	4624	2979	-4489	7595	-4368	1654	-4572	6342
A	5145	6764	5933	2476	2402	2346	5685	2306	5765	6402
=										

No	1	2	3	4	5	6	7	8	9	10
A	1596	5217	7184	5346	9159	1981	8152	2276	1468	9793
A	4797	-3552	-5598	7254	-4215	-1762	-3635	6277	3561	-1466
A	5445	4529	-1153	-1569	-4281	1567	-4125	3291	-1616	5225
=										

Abakusda sodda ko'paytish

Ko'paytirish amalini o'rganishdan oldin biz abakusda qo'shish va ayirish, katta va kichik do'st fomulalari, hamda ko'paytirish jadvalini mukammal bilishimiz shart!

Abakusda sodda ko'paytirish bu istalgan sonni bir xonali songa ko'paytirish hisoblanadi. Misol tariqasida $49 \times 6 = ?$ ni olamiz. Bu yerda **49** 1-ko'paytuvchi, **6** esa 2-ko'paytuvchi, chiqadigan javobimiz ko'paytma bo'ladi.

Abakusda ko'paytirish jarayonini biz 3ga bo'lamiz:

1. Joy ajratish;
2. Ko'paytirish;
3. Kiritish.

1. Joy ajratish. Misolni ishlashdan avval misolning javobi, ya'ni ko'paytmani necha xonalik bo'lishini aniqlab olamiz hamda abakusning o'ng qismidan shuncha xona joy ajratamiz. Buning uchun 1-ko'paytuvchi va 2-ko'paytuvchi xonalari soni yig'indisi hisoblab topiladi. Misolimizdagi 1-ko'paytuvchi (**49**) 2 xonali, 2-ko'paytuvchi (**6**) 1 xonali, xonalari soni yig'indisi (**2+1**) 3 ga teng bo'ladi. Demak, ko'paytmamiz 3 xonali son bo'lishini aniqlab oldik. Shuning uchun biz abakusning o'ng qismidan javob uchun 3 xona joy ajratamiz.

2. Ko'paytirish. 2-ko'paytuvchini 1-ko'paytuvchi xonalariga, ya'ni 6 ni 49 ga chapdan o'ngga qarab alohida alohida raqamlarga ko'paytirib chiqamiz (6×4 va 6×9 shaklida).

3. Kiritish. Javoblarni abakusda ajratilgan joyga chapdan boshlab kiritib chiqamiz. $6 \times 4 = 24$. 24 ni abakusning 3-xonasiga kiritamiz. Har bir javobni kiritganimizdan so'ng chapdan o'ngga bir xona surilib olamiz. Endi $6 \times 9 = 54$ ni esa abakusning 2-xonasiga kiritamiz. ($240 + 54 = 294$) Javob: 294.

Abakusda sodda ko'paytirish shu tartibda ishlanadi.

Keling endi 2-misol qilib $68 \times 6 = ?$ ni olamiz va ishlab ko'ramiz. Avval ko'paytma uchun joy ajratishimiz kerak. 6, 8, 6, jami bo'lib 3 xona. Demak, abakusning o'ng qismidan javob uchun 3 xona joy ajratib olamiz. 2-ishimiz bu ko'paytiramiz. $6 \times 6 = 36$, $6 \times 8 = 48$. 3-ishimiz bu abakusga javoblarni kiritishdir. 3-xonadan, ya'ni yuzliklar xonasidan boshlab 36ni, 2-xona, ya'ni o'nliklar xonasidan boshlab 48 ni kiritamiz. Bunda biroz mushkullik tug'iladi deb o'ylashingiz mumkin. Ammo adashasiz, siz bu muammoni bartaraf eta olasiz. 1-javobni kiritganingizdan so'ng abakusda 360 soni hosil bo'ladi. 360ga 48 ni qo'shayotganda o'nliklar xonasidan 4 soni yetishmaydi. Shuning uchun siz katta do'st formulasidan foydalangan holda ushbu muammoli vaziyatga barham bera olasiz. Avval 360ga 40ni qo'shib olamiz ($360 + 40 = 360 + 100 - 60 = 400$), so'ngra 8ni qo'shamiz ($400 + 8 = 408$). Javob: 408.

Kelinglar, sizlar bilan birgalikda $14 \times 3 = ?$ misolini yechib ko'ramiz. Javob 3 xonali bo'ladi. Abakusda bu sonni ko'paytirsangiz $3 \times 1 = 3$, $3 \times 4 = 12$ bo'ladi. Birinchi javobni 3-xonadan kiritasiz, ikkinchi javobni esa 2-xonadan kiritasiz. Javobimiz 312 chiqdi. Lekin misolning javobi bunday chiqmasligini hatto yosh bola ham biladi. Shuning uchun sizga ko'paytirishdagi bir muhim qoidani keltirib o'tamiz.

ESLATMA!

Agar 1-ko'paytuvchi va 2-ko'paytuvchi raqamlarini bir-biriga ko'paytirganimizda ko'paytma 10dan kichik son ko'rinishida chiqsa, ya'ni 2xonalik son ko'rinishida chiqmasa, uning chap tarafiga bitta no'lni qo'shib ikki xonalik son ko'rinishiga keltirib olamiz. 00, 01, 02, ... 08, 09. Ana endi bundan oldingi $14 \times 3 = ?$ misolini yechib ko'ramiz. Javob uchun 3 xona joy ajratamiz, lekin 2-ishimiz, ya'ni ko'paytirganimizda birinchi ko'paytmamizni $3 \times 1 = 3$ emas, balki $3 \times 1 = 03$ deb olamiz. Ikkinchi ko'paytmamiz esa $3 \times 4 = 12$ bo'ladi. Endi abakusga ushbu qiymatlarni kiritayotamiz. Birinchi javobimiz 03 ni abakusning 3-xonasi, ya'ni yuzliklar xonasidan kiritishni boshlaymiz. 0 raqami yuzliklar xonasiga, 3 raqami o'nliklar xonasiga kiritiladi. Ikkinchi javobimiz 12 ni boshlagan joyimizdan bir xona o'ngga surilib o'nliklar xonasiga 1 ni, birliklar xonasiga 2 ni kiritamiz. ($030 + 12 = 042$). Javobning birinchi raqami 0 ni shunchaki olib tashlasak ham bo'ladi. Javob: 42.

34-35-topshiriqlarni yuqoridagi qoidalarga amal qilgan holda ishlab chiqing!

34-topshiriq

1	$88 \times 6 =$	1	$3 \times 28 =$	1	$51 \times 1 =$
2	$59 \times 3 =$	2	$7 \times 47 =$	2	$46 \times 4 =$
3	$48 \times 7 =$	3	$2 \times 86 =$	3	$28 \times 7 =$
4	$62 \times 4 =$	4	$6 \times 52 =$	4	$73 \times 3 =$
5	$78 \times 8 =$	5	$4 \times 90 =$	5	$39 \times 8 =$
6	$36 \times 2 =$	6	$9 \times 57 =$	6	$61 \times 9 =$
7	$14 \times 5 =$	7	$7 \times 65 =$	7	$87 \times 2 =$
8	$39 \times 9 =$	8	$5 \times 37 =$	8	$90 \times 8 =$
9	$29 \times 6 =$	9	$8 \times 96 =$	9	$53 \times 8 =$
10	$41 \times 6 =$	10	$3 \times 64 =$	10	$24 \times 9 =$
11	$13 \times 2 =$	11	$6 \times 53 =$	11	$66 \times 6 =$
12	$20 \times 7 =$	12	$4 \times 93 =$	12	$16 \times 7 =$
13	$23 \times 3 =$	13	$7 \times 16 =$	13	$52 \times 4 =$
14	$96 \times 5 =$	14	$2 \times 20 =$	14	$95 \times 3 =$
15	$87 \times 8 =$	15	$3 \times 22 =$	15	$23 \times 8 =$
16	$32 \times 4 =$	16	$6 \times 38 =$	16	$68 \times 4 =$
17	$65 \times 9 =$	17	$7 \times 46 =$	17	$34 \times 7 =$
18	$51 \times 2 =$	18	$9 \times 35 =$	18	$76 \times 3 =$
19	$23 \times 7 =$	19	$2 \times 80 =$	19	$84 \times 9 =$
20	$96 \times 3 =$	20	$5 \times 93 =$	20	$75 \times 6 =$
21	$88 \times 8 =$	21	$6 \times 75 =$	21	$34 \times 2 =$
22	$33 \times 4 =$	22	$9 \times 12 =$	22	$49 \times 8 =$
23	$65 \times 9 =$	23	$4 \times 56 =$	23	$26 \times 5 =$
24	$51 \times 2 =$	24	$7 \times 81 =$	24	$63 \times 3 =$
25	$23 \times 7 =$	25	$6 \times 38 =$	25	$74 \times 8 =$
26	$96 \times 3 =$	26	$1 \times 95 =$	26	$12 \times 6 =$
27	$47 \times 6 =$	27	$8 \times 74 =$	27	$33 \times 3 =$
28	$62 \times 7 =$	28	$3 \times 63 =$	28	$15 \times 6 =$
29	$34 \times 3 =$	29	$5 \times 26 =$	29	$55 \times 5 =$
30	$70 \times 5 =$	30	$8 \times 49 =$	30	$30 \times 6 =$
31	$53 \times 7 =$	31	$2 \times 34 =$	31	$23 \times 6 =$
32	$65 \times 8 =$	32	$6 \times 75 =$	32	$34 \times 3 =$
33	$89 \times 2 =$	33	$9 \times 84 =$	33	$36 \times 3 =$
34	$26 \times 7 =$	34	$3 \times 76 =$	34	$56 \times 2 =$
35	$94 \times 3 =$	35	$7 \times 34 =$	35	$31 \times 5 =$

35-topshiriq

1	$125 \times 6 =$	1	$421 \times 5 =$	1	$616 \times 3 =$
2	$355 \times 6 =$	2	$235 \times 4 =$	2	$730 \times 9 =$
3	$106 \times 6 =$	3	$502 \times 4 =$	3	$953 \times 3 =$
4	$522 \times 5 =$	4	$252 \times 2 =$	4	$892 \times 6 =$
5	$245 \times 5 =$	5	$300 \times 5 =$	5	$703 \times 6 =$
6	$312 \times 5 =$	6	$544 \times 3 =$	6	$268 \times 3 =$
7	$564 \times 2 =$	7	$112 \times 6 =$	7	$253 \times 4 =$
8	$304 \times 6 =$	8	$340 \times 5 =$	8	$465 \times 8 =$
9	$613 \times 2 =$	9	$512 \times 5 =$	9	$589 \times 9 =$
10	$344 \times 3 =$	10	$443 \times 4 =$	10	$888 \times 3 =$
11	$543 \times 5 =$	11	$201 \times 4 =$	11	$675 \times 5 =$
12	$230 \times 6 =$	12	$321 \times 2 =$	12	$387 \times 6 =$
13	$365 \times 3 =$	13	$530 \times 6 =$	13	$670 \times 7 =$
14	$341 \times 3 =$	14	$420 \times 4 =$	14	$863 \times 3 =$
15	$102 \times 6 =$	15	$567 \times 2 =$	15	$578 \times 4 =$
16	$536 \times 4 =$	16	$516 \times 8 =$	16	$721 \times 7 =$
17	$542 \times 4 =$	17	$305 \times 4 =$	17	$449 \times 7 =$
18	$231 \times 5 =$	18	$140 \times 2 =$	18	$407 \times 5 =$
19	$533 \times 3 =$	19	$644 \times 2 =$	19	$109 \times 7 =$
20	$326 \times 5 =$	20	$421 \times 8 =$	20	$195 \times 2 =$
21	$464 \times 4 =$	21	$653 \times 3 =$	21	$263 \times 2 =$
22	$350 \times 3 =$	22	$461 \times 4 =$	22	$287 \times 2 =$
23	$653 \times 6 =$	23	$252 \times 6 =$	23	$314 \times 7 =$
24	$563 \times 3 =$	24	$624 \times 2 =$	24	$128 \times 8 =$
25	$124 \times 5 =$	25	$106 \times 5 =$	25	$251 \times 3 =$
26	$145 \times 7 =$	26	$121 \times 6 =$	26	$130 \times 2 =$
27	$532 \times 2 =$	27	$602 \times 6 =$	27	$314 \times 3 =$
28	$130 \times 2 =$	28	$335 \times 5 =$	28	$622 \times 2 =$
29	$353 \times 6 =$	29	$511 \times 8 =$	29	$811 \times 3 =$
30	$341 \times 3 =$	30	$525 \times 7 =$	30	$111 \times 4 =$
31	$552 \times 5 =$	31	$412 \times 6 =$	31	$231 \times 9 =$
32	$333 \times 7 =$	32	$261 \times 4 =$	32	$354 \times 2 =$
33	$557 \times 5 =$	33	$634 \times 7 =$	33	$412 \times 2 =$
34	$150 \times 6 =$	34	$605 \times 8 =$	34	$633 \times 3 =$
35	$502 \times 2 =$	35	$352 \times 8 =$	35	$444 \times 4 =$

Abakusda murakkab ko'paytirish

Abakusda murakkab ko'paytirish deyilganda ikki va undan ortiq xonalik sonlarni bir-biriga ko'paytirishni tushunamiz. Buni yaxshiroq tushunish uchun misollar orqali ko'rib chiqaylik: $76 \times 12 = ?$. Bu misolni yechish uchun ham avval javvob necha xonalik bo'lishini aniqlab, abakusning o'ng qismidan shuncha xona joy ajratamiz. 7, 6, 1, 2, umumiy hisobda 4 xona joy ajratamiz.

Ikkinchi qiladigan ishimiz: 1-ko'paytuvchini birlik sonini, ya'ni 6ni tasavvurda yo'q deb turamiz, so'ngra o'nlik sonini, ya'ni 7ni 2-ko'paytuvchining raqamlariga chapdan o'ngga ko'paytirib chiqamiz. $7 \times 1 = 07$, $7 \times 2 = 14$. Endi shu sonlarni abakusga kiritamiz. 07ni abakusda ajratgan joyimizning eng chap tarafiga, ya'ni 4-xonasiga kiritamiz. Bunda 0 mingliklar xonasiga, 7 yuzliklar xonasiga tushadi. Endi boshlagan joyimizdan bir xona o'ngga surilib 14 ni kiritamiz. Bunda 1 yuzliklar xonasiga, 4 esa o'nliklar xonasiga kiritiladi ($0700 + 140$). Bizda 0840 qiymati hosil bo'ladi.

Biz 1-ko'paytuvchimizning o'nlik raqami 7 ni ishlatib bo'ldik. Shuning uchun endi biz 7ni yo'q deb tasavvur qilamiz. Bizda endi 3 ta son, ya'ni 6, 1, 2 qoldi. Endi bu ko'paytirish sodda ko'paytirishga aylandi. Biz esa buni yecha olamiz. $6 \times 1 = 06$, $6 \times 2 = 12$. Endi ushbu sonlarni abakusga kiritsak bo'lgani. 06 soni uchinchi xona, yuzliklar xonasidan boshlab kiritiladi ($0840 + 060 = 0840 + 100 - 40 = 0900$). 12 soni esa ikkinchi xonadan, o'nliklar xonasidan boshlab kiritiladi ($0900 + 12 = 0912$). Javob: 912.

$763 \times 44 = ?$. Bu kabi misolni ishlash ham juda oddiy. Shunchaki biz ko'paytirishimiz kerak bo'lgan sonlar bittaga ko'paydi. Avval 45 sonining birlik raqami 5ni yo'q deb tasavvur qilib, o'nlik raqami 4ni 1-ko'paytuvchiga raqamlariga ko'paytirib chiqamiz. $4 \times 7 = 28$, $4 \times 6 = 24$, $4 \times 3 = 12$. Abakusga qiymatlarni kiritamiz ($28000 + 2400 + 120 = 30520$). So'ngra 45 sonining 4 sonini yo'q deb tasavvur qilib, 5ni 1-ko'paytuvchi raqamlariga ko'paytirib chiqamiz va abakusga kiritamiz. $5 \times 7 = 35$, $5 \times 6 = 30$, $5 \times 3 = 15$. 35 sonini abakusning 4-xonasidan boshlab kiritamiz. ($30520 + 3500 + 300 + 15 = 34335$). Javob: 34335.

36-38-topshiriqlarni yuqoridagi qoidalarga amal qilgan holda ishlab chiqing!

36-topshiriq

1	$16 \times 58 =$	1	$65 \times 93 =$	1	$82 \times 36 =$
2	$67 \times 96 =$	2	$59 \times 13 =$	2	$24 \times 79 =$
3	$37 \times 69 =$	3	$63 \times 82 =$	3	$73 \times 96 =$
4	$54 \times 22 =$	4	$42 \times 26 =$	4	$91 \times 68 =$
5	$79 \times 43 =$	5	$38 \times 89 =$	5	$52 \times 19 =$
6	$26 \times 76 =$	6	$32 \times 55 =$	6	$36 \times 65 =$
7	$71 \times 38 =$	7	$48 \times 65 =$	7	$26 \times 43 =$
8	$48 \times 62 =$	8	$13 \times 95 =$	8	$21 \times 76 =$
9	$54 \times 54 =$	9	$57 \times 25 =$	9	$73 \times 20 =$
10	$94 \times 38 =$	10	$92 \times 85 =$	10	$64 \times 52 =$
11	$88 \times 84 =$	11	$84 \times 45 =$	11	$87 \times 26 =$
12	$19 \times 26 =$	12	$49 \times 35 =$	12	$71 \times 12 =$
13	$36 \times 73 =$	13	$75 \times 65 =$	13	$69 \times 13 =$
14	$24 \times 47 =$	14	$31 \times 45 =$	14	$49 \times 32 =$
15	$73 \times 92 =$	15	$63 \times 25 =$	15	$64 \times 48 =$
16	$68 \times 49 =$	16	$90 \times 65 =$	16	$58 \times 79 =$
17	$94 \times 15 =$	17	$53 \times 55 =$	17	$63 \times 51 =$
18	$57 \times 45 =$	18	$87 \times 25 =$	18	$41 \times 14 =$
19	$83 \times 76 =$	19	$28 \times 35 =$	19	$75 \times 13 =$
20	$75 \times 83 =$	20	$52 \times 55 =$	20	$58 \times 28 =$
21	$24 \times 50 =$	21	$95 \times 15 =$	21	$41 \times 67 =$
22	$49 \times 61 =$	22	$76 \times 85 =$	22	$74 \times 49 =$
23	$17 \times 92 =$	23	$48 \times 25 =$	23	$15 \times 53 =$
24	$58 \times 23 =$	24	$30 \times 85 =$	24	$83 \times 52 =$
25	$92 \times 84 =$	25	$61 \times 95 =$	25	$68 \times 24 =$
26	$89 \times 49 =$	26	$82 \times 24 =$	26	$45 \times 68 =$
27	$43 \times 38 =$	27	$67 \times 40 =$	27	$39 \times 14 =$
28	$75 \times 64 =$	28	$26 \times 23 =$	28	$67 \times 15 =$
29	$38 \times 47 =$	29	$82 \times 94 =$	29	$28 \times 29 =$
30	$62 \times 23 =$	30	$43 \times 37 =$	30	$19 \times 43 =$
31	$96 \times 69 =$	31	$17 \times 79 =$	31	$14 \times 78 =$
32	$53 \times 57 =$	32	$82 \times 52 =$	32	$25 \times 19 =$
33	$71 \times 28 =$	33	$63 \times 83 =$	33	$88 \times 27 =$
34	$84 \times 36 =$	34	$21 \times 65 =$	34	$98 \times 17 =$
35	$28 \times 59 =$	35	$75 \times 40 =$	35	$65 \times 98 =$

37-topshiriq

1	$325 \times 96 =$	1	$733 \times 27 =$	1	$758 \times 89 =$
2	$162 \times 13 =$	2	$923 \times 94 =$	2	$999 \times 35 =$
3	$920 \times 10 =$	3	$379 \times 37 =$	3	$502 \times 83 =$
4	$822 \times 74 =$	4	$964 \times 49 =$	4	$886 \times 58 =$
5	$923 \times 85 =$	5	$604 \times 96 =$	5	$683 \times 42 =$
6	$937 \times 75 =$	6	$190 \times 57 =$	6	$458 \times 25 =$
7	$931 \times 69 =$	7	$192 \times 68 =$	7	$537 \times 79 =$
8	$646 \times 35 =$	8	$122 \times 35 =$	8	$432 \times 77 =$
9	$742 \times 62 =$	9	$825 \times 88 =$	9	$961 \times 89 =$
10	$483 \times 76 =$	10	$924 \times 92 =$	10	$967 \times 56 =$
11	$397 \times 40 =$	11	$396 \times 81 =$	11	$321 \times 15 =$
12	$219 \times 45 =$	12	$366 \times 66 =$	12	$976 \times 26 =$
13	$465 \times 97 =$	13	$877 \times 40 =$	13	$716 \times 46 =$
14	$959 \times 13 =$	14	$995 \times 29 =$	14	$521 \times 14 =$
15	$194 \times 33 =$	15	$767 \times 30 =$	15	$812 \times 58 =$
16	$269 \times 24 =$	16	$257 \times 63 =$	16	$144 \times 45 =$
17	$381 \times 88 =$	17	$564 \times 44 =$	17	$593 \times 47 =$
18	$495 \times 83 =$	18	$973 \times 21 =$	18	$679 \times 15 =$
19	$779 \times 11 =$	19	$801 \times 61 =$	19	$815 \times 87 =$
20	$603 \times 29 =$	20	$949 \times 21 =$	20	$133 \times 53 =$
21	$672 \times 43 =$	21	$669 \times 61 =$	21	$856 \times 92 =$
22	$281 \times 93 =$	22	$411 \times 51 =$	22	$312 \times 29 =$
23	$556 \times 72 =$	23	$188 \times 73 =$	23	$121 \times 34 =$
24	$951 \times 27 =$	24	$770 \times 48 =$	24	$322 \times 70 =$
25	$562 \times 93 =$	25	$878 \times 90 =$	25	$718 \times 15 =$
26	$686 \times 96 =$	26	$601 \times 80 =$	26	$279 \times 91 =$
27	$578 \times 37 =$	27	$513 \times 17 =$	27	$136 \times 68 =$
28	$321 \times 30 =$	28	$569 \times 63 =$	28	$182 \times 91 =$
29	$664 \times 72 =$	29	$781 \times 76 =$	29	$248 \times 62 =$
30	$502 \times 51 =$	30	$739 \times 69 =$	30	$606 \times 70 =$
31	$117 \times 93 =$	31	$460 \times 73 =$	31	$733 \times 27 =$
32	$314 \times 40 =$	32	$670 \times 67 =$	32	$964 \times 49 =$
33	$550 \times 52 =$	33	$133 \times 19 =$	33	$122 \times 35 =$
34	$606 \times 70 =$	34	$642 \times 90 =$	34	$672 \times 43 =$
35	$479 \times 95 =$	35	$690 \times 74 =$	35	$122 \times 35 =$

38-topshiriq

1	$145 \times 827 =$	1	$749 \times 11 =$	1	$148 \times 42 =$
2	$412 \times 159 =$	2	$809 \times 44 =$	2	$757 \times 19 =$
3	$518 \times 566 =$	3	$175 \times 34 =$	3	$961 \times 55 =$
4	$642 \times 726 =$	4	$874 \times 32 =$	4	$329 \times 62 =$
5	$519 \times 413 =$	5	$187 \times 75 =$	5	$845 \times 47 =$
6	$725 \times 228 =$	6	$652 \times 14 =$	6	$347 \times 49 =$
7	$212 \times 324 =$	7	$369 \times 12 =$	7	$659 \times 58 =$
8	$155 \times 712 =$	8	$789 \times 22 =$	8	$342 \times 64 =$
9	$616 \times 353 =$	9	$852 \times 12 =$	9	$753 \times 14 =$
10	$258 \times 412 =$	10	$968 \times 65 =$	10	$258 \times 53 =$
11	$619 \times 442 =$	11	$789 \times 41 =$	11	$463 \times 76 =$
12	$623 \times 924 =$	12	$635 \times 12 =$	12	$829 \times 42 =$
13	$246 \times 267 =$	13	$327 \times 52 =$	13	$154 \times 32 =$
14	$749 \times 156 =$	14	$482 \times 53 =$	14	$358 \times 19 =$
15	$289 \times 318 =$	15	$619 \times 42 =$	15	$849 \times 57 =$
16	$722 \times 533 =$	16	$263 \times 14 =$	16	$657 \times 58 =$
17	$458 \times 325 =$	17	$216 \times 27 =$	17	$365 \times 93 =$
18	$159 \times 818 =$	18	$274 \times 16 =$	18	$623 \times 24 =$
19	$459 \times 228 =$	19	$222 \times 30 =$	19	$254 \times 18 =$
20	$258 \times 233 =$	20	$255 \times 22 =$	20	$148 \times 42 =$
21	$694 \times 453 =$	21	$616 \times 38 =$	21	$601 \times 90 =$
22	$849 \times 752 =$	22	$272 \times 53 =$	22	$781 \times 76 =$
23	$797 \times 462 =$	23	$481 \times 35 =$	23	$460 \times 73 =$
24	$274 \times 173 =$	24	$269 \times 88 =$	24	$133 \times 19 =$
25	$589 \times 782 =$	25	$142 \times 19 =$	25	$550 \times 52 =$
26	$185 \times 296 =$	26	$212 \times 59 =$	26	$190 \times 57 =$
27	$873 \times 276 =$	27	$262 \times 72 =$	27	$194 \times 33 =$
28	$115 \times 289 =$	28	$259 \times 43 =$	28	$779 \times 11 =$
29	$369 \times 692 =$	29	$175 \times 28 =$	29	$603 \times 29 =$
30	$208 \times 105 =$	30	$222 \times 34 =$	30	$646 \times 35 =$
31	$382 \times 154 =$	31	$125 \times 72 =$	31	$951 \times 27 =$
32	$967 \times 444 =$	32	$616 \times 33 =$	32	$562 \times 93 =$
33	$241 \times 835 =$	33	$228 \times 12 =$	33	$281 \times 93 =$
34	$628 \times 119 =$	34	$619 \times 42 =$	34	$716 \times 46 =$
35	$802 \times 222 =$	35	$263 \times 14 =$	35	$923 \times 32 =$

Abakusda sodda bo'lish

Bo'lish amalini o'rganishdan oldin biz abakusda qo'shish va ayirish, katta va kichik do'st fomulalari, hamda ko'paytirish jadvalini va uning teskarisini mukammal bilishimiz shart!

Abakusda sodda bo'lish amali deganda istalgan xonali sonni bir xonali songa bo'lish tushuniladi. Misol tariqasida $228 \div 3 = ?$ misolni olaylik. Bu yerda 228-bo'linuvchi, 3-bo'luvchi, $=?$ javob bo'linma.

Abakusda bo'lish jarayonini biz 3ga bo'lamiz:

1. Qoralama sifatida kiritish va joy ajratish;
2. Bo'lish;
3. Kiritish.

1. Qoralama sifatida kiritish va joy ajratish. Bo'linuvchini abakusning o'ng qismiga qoralama sifatida kiritib olamiz va qoralamaning chap tarafidan bo'linuvchi necha xonali son bo'lsa, javob uchun shuncha xona joy ajratamiz. Bu misolimizda abakusning o'ng tarafiga 228ni kiritamiz va uning chap tarafidan 3 xona joy ajratamiz.

2. Bo'lish. Bo'linuvchi (228)ning chap tomonidan boshlab har bir raqamini bo'luvchi (3)ga bo'lib chiqamiz. Bunda biz bo'linmaning faqat butun qismini olamiz. 1-bo'lib 228 sonidan 2ni 3ga bo'lib ko'ramiz ($2 \div 3 = ?$). 2ni 3 ga bo'lib bo'lmagani uchun 0 ni beramiz.

3. Kiritish. 0 raqamini abakusda qoralamaning chap tarafidan ajratilgan joyning chap qismidan kiritamiz. 0 ni kiritish degani bu o'sha joyga hech nima qilmasdan keying xonaga o'tishlik deganidir. Bo'lishdagi oltin qoidani yoddan ko'tarmaslik zarur! "Qolgan qoldiq keyingi xona raqami bilan bitta qiymat deb qabul qilinadi".

Endi biz bo'linuvchining 2-raqamiga o'tamiz: $22 \cdot 8$ va 22ni 3 ga bo'lamiz ($22 \div 3 = 7$). 22ga eng yaqin 3 ga karrali son bu 7 ($3 \times 7 = 21$). Shuning uchun biz abakusning javoblar uchun ajratilgan joyining 2-xonasiga 7 javobini kiritamiz hamda qoramadan kiritgan javob bilan bo'linmaning ko'paytmasi (21)ni qoramadan ayiramiz ($22 \cdot 8 - 21 = 1 \cdot 8$). Bizda 1 qoldiq qoladi va biz bu sonni keyingi xona raqami bilan bitta qiymat deb qabul qilamiz. Endi bizda 18 soni qoldi. 18ni 3 ga bo'lamiz ($18 \div 3 = 6$), hosil bo'lgan javobni abakusda javoblar uchun ajratilgan xonamizning oxirgi ustuniga kiritamiz. Qoramadan kiritgan javob bilan bo'linmaning ko'paytmasi ($3 \times 6 = 18$)ni ayiramiz. Qoldiq 0 ga teng bo'ldi va bizning javobimiz 076 bo'ldi. 0 raqamini biz bemalol o'qimasak ham bo'ladi. Demak javob: 76.

Ushbu qoidalarga amal qilgan holda siz nafaqat 3 xonali sonni bir xonali songa, balki abakusingizga sig'adigan xonali sonni bir xonali songa bo'la olasiz. Asosiysi siz o'zingizga ishonsangiz bas.

39-40-topshiriqlarni o'rgangan bilimlaringizga tayangan holda ishlab chiqishga harakat qiling!

39-topshiriq

1	$246 \div 3 =$	1	$140 \div 4 =$	1	$1340 \div 2 =$
2	$528 \div 6 =$	2	$225 \div 3 =$	2	$3888 \div 9 =$
3	$104 \div 2 =$	3	$539 \div 7 =$	3	$6685 \div 7 =$
4	$329 \div 7 =$	4	$405 \div 9 =$	4	$4784 \div 8 =$
5	$198 \div 9 =$	5	$306 \div 6 =$	5	$1440 \div 8 =$
6	$296 \div 4 =$	6	$621 \div 3 =$	6	$3085 \div 5 =$
7	$330 \div 6 =$	7	$414 \div 3 =$	7	$2646 \div 3 =$
8	$176 \div 8 =$	8	$816 \div 4 =$	8	$3246 \div 6 =$
9	$235 \div 5 =$	9	$214 \div 2 =$	9	$5520 \div 6 =$
10	$192 \div 3 =$	10	$707 \div 7 =$	10	$1764 \div 7 =$
11	$248 \div 8 =$	11	$816 \div 2 =$	11	$2556 \div 6 =$
12	$252 \div 9 =$	12	$210 \div 2 =$	12	$2612 \div 4 =$
13	$328 \div 4 =$	13	$515 \div 5 =$	13	$3051 \div 9 =$
14	$168 \div 2 =$	14	$624 \div 3 =$	14	$1768 \div 2 =$
15	$435 \div 5 =$	15	$912 \div 3 =$	15	$2247 \div 3 =$

40-topshiriq

1	$284 \div 4 =$	1	$272 \div 8 =$	1	$8145 \div 9 =$
2	$124 \div 2 =$	2	$105 \div 5 =$	2	$3672 \div 9 =$
3	$126 \div 2 =$	3	$532 \div 7 =$	3	$2404 \div 4 =$
4	$288 \div 4 =$	4	$378 \div 9 =$	4	$1525 \div 5 =$
5	$246 \div 3 =$	5	$360 \div 8 =$	5	$1518 \div 3 =$
6	$546 \div 2 =$	6	$332 \div 4 =$	6	$1812 \div 2 =$
7	$276 \div 3 =$	7	$110 \div 5 =$	7	$4832 \div 8 =$
8	$248 \div 4 =$	8	$135 \div 3 =$	8	$3208 \div 8 =$
9	$216 \div 6 =$	9	$472 \div 8 =$	9	$6342 \div 7 =$
10	$259 \div 7 =$	10	$207 \div 9 =$	10	$2109 \div 3 =$
11	$128 \div 2 =$	11	$666 \div 9 =$	11	$3264 \div 8 =$
12	$189 \div 7 =$	12	$441 \div 9 =$	12	$4048 \div 8 =$
13	$244 \div 4 =$	13	$246 \div 2 =$	13	$8163 \div 9 =$
14	$744 \div 8 =$	14	$395 \div 5 =$	14	$1624 \div 8 =$
15	$294 \div 7 =$	15	$884 \div 2 =$	15	$1830 \div 6 =$
16	$306 \div 6 =$	16	$648 \div 6 =$	16	$4512 \div 6 =$
17	$420 \div 7 =$	17	$520 \div 5 =$	17	$1008 \div 2 =$
18	$248 \div 4 =$	18	$515 \div 5 =$	18	$7335 \div 9 =$
19	$270 \div 9 =$	19	$802 \div 2 =$	19	$1926 \div 2 =$
20	$488 \div 8 =$	20	$216 \div 2 =$	20	$4152 \div 8 =$
21	$330 \div 5 =$	21	$876 \div 2 =$	21	$2061 \div 9 =$
22	$102 \div 2 =$	22	$444 \div 3 =$	22	$6062 \div 7 =$
23	$342 \div 6 =$	23	$849 \div 3 =$	23	$3640 \div 5 =$
24	$150 \div 3 =$	24	$861 \div 7 =$	24	$2664 \div 3 =$
25	$385 \div 7 =$	25	$789 \div 3 =$	25	$1512 \div 7 =$
26	$168 \div 8 =$	26	$580 \div 4 =$	26	$3420 \div 5 =$
27	$115 \div 5 =$	27	$805 \div 5 =$	27	$2392 \div 4 =$
28	$711 \div 9 =$	28	$825 \div 3 =$	28	$4872 \div 8 =$
29	$196 \div 4 =$	29	$272 \div 2 =$	29	$1352 \div 2 =$
30	$140 \div 2 =$	30	$570 \div 5 =$	30	$5952 \div 8 =$
31	$252 \div 7 =$	31	$896 \div 2 =$	31	$6636 \div 7 =$
32	$370 \div 5 =$	32	$456 \div 2 =$	32	$1113 \div 7 =$
33	$252 \div 3 =$	33	$306 \div 2 =$	33	$1584 \div 6 =$
34	$546 \div 6 =$	34	$842 \div 2 =$	34	$3700 \div 5 =$
35	$328 \div 8 =$	35	$444 \div 2 =$	35	$4662 \div 9 =$

Abakusda murakkab bo'lish

Abakusda murakkab bo'lish amali deganda ko'p xonali sonni ko'p xonali songa bo'lish tushuniladi. Misol tariqasida $228 \div 3 = ?$ misolni olaylik. Bu yerda 228-bo'linuvchi, 3-bo'luvchi, $=?$ javob bo'linma.

Misol tariqasida quyadagi misolni olamiz: $288 \div 36 = ?$ Bo'linuvchini abakusning o'ng tomoniga kiritib olamiz. Chapdan javob uchun 3 xona ajratamiz chunki bo'linuvchi 3 xonalik. Bo'linuvchi (288)ni chapdan o'ngga qarab bo'luvchi (36)ga bo'lib chiqamiz. 2'88 dagi 2 ni 36 ga bo'lamiz, biroq bo'linmagani uchun 0ni javobning birinchi xonasiga kiritamiz. 28'8 dagi 28 ni 36 ga bo'lamiz. 28ni ham bo'lib bo'lmaganligi sababli javobga yana 0ni kiritamiz. Endi 288'ni 36 ga bo'lamiz. Buning uchun verguldan oldingi sondan vertikal chiziq o'tkazamiz. Chiziq 36 ni o'rtasidan, xuddi rasmdagi holatda o'tsin.

$$\begin{array}{r} 288 \\ 36 \overline{) } \end{array}$$

Chizmadan foydalanib 288 ni ichida 36 nechta borligini topamiz. Avvalo chizmada ko'rinib turganidek 28 ni ichida 3 dan nechta borligini aniqlash kerak. $28 \div 3 = 9$, taxminan 9 ta bor. Endi chiqqan javobni bo'luvchini ikkinchi raqamiga, chiziqni ikkinchi tomonida turgan songa ko'paytiramiz (1-chizma). Javob: $9 \times 6 = 54$. Javobning oxirgi raqami bo'linuvchini oxirgi raqami bilan mos kelish kelmasligini tekshirib olamiz. (2-chizma) Agar mos tushsa uni $288 \div 36$ ni javobi sifatida olsak bo'ladi. Agar mos tushmasa, javobni bittaga kamaytiramiz, ya'ni endi javobni 9 emas, 8 deb olib yana tekshirib ko'ramiz.(3-chizma) Ko'paytirganda oxirgi raqamlar mos kelsa, uni javob sifatida olamiz. Agar mos kelmasa mos kelmaguncha javobdan bittadan son kamaytiraveramiz. Abakusning eng chapki qismini qoralama sifatida foydalanib, javobni bo'linmaga ko'paytirishda foydalansak bo'ladi. Murakkab bo'lish bilan ko'proq ishlaganingizdan so'ng sizga chizmaning keragi bo'lmay qoladi. Chunki chizma bu shunchaki o'rganish uchun bir poydevordir.

$$\begin{array}{r} 288 \\ 36 \overline{) } \\ 9 \end{array}$$

1-chizma ↑

$$\begin{array}{r} 288 \\ 36 \overline{) } \\ 9 \end{array}$$

2-chizma

$$\begin{array}{r} 288 \\ 36 \overline{) } \\ 8 \end{array}$$

3-chizma ↑

41-topshiriqni yuqoridagi qoidalarga amal qilgan holda ishlab chiqing!

41-topshiriq

1	$488 \div 61 =$	1	$136 \div 68 =$	1	$106 \div 53 =$
2	$272 \div 68 =$	2	$276 \div 69 =$	2	$210 \div 70 =$
3	$288 \div 36 =$	3	$280 \div 56 =$	3	$375 \div 75 =$
4	$380 \div 95 =$	4	$216 \div 54 =$	4	$320 \div 64 =$
5	$552 \div 69 =$	5	$212 \div 53 =$	5	$335 \div 67 =$
6	$180 \div 90 =$	6	$126 \div 63 =$	6	$159 \div 53 =$
7	$272 \div 34 =$	7	$182 \div 91 =$	7	$156 \div 78 =$
8	$568 \div 71 =$	8	$210 \div 70 =$	8	$267 \div 89 =$
9	$672 \div 84 =$	9	$174 \div 58 =$	9	$265 \div 53 =$
10	$460 \div 92 =$	10	$108 \div 54 =$	10	$176 \div 88 =$
11	$196 \div 28 =$	11	$132 \div 44 =$	11	$295 \div 59 =$
12	$165 \div 33 =$	12	$100 \div 50 =$	12	$300 \div 75 =$
13	$104 \div 26 =$	13	$435 \div 87 =$	13	$228 \div 76 =$
14	$240 \div 40 =$	14	$102 \div 34 =$	14	$256 \div 64 =$
15	$243 \div 81 =$	15	$180 \div 90 =$	15	$156 \div 78 =$
16	$658 \div 94 =$	16	$145 \div 29 =$	16	$152 \div 76 =$
17	$495 \div 55 =$	17	$200 \div 40 =$	17	$243 \div 81 =$
18	$259 \div 37 =$	18	$105 \div 21 =$	18	$485 \div 97 =$
19	$504 \div 56 =$	19	$276 \div 92 =$	19	$146 \div 73 =$
20	$108 \div 54 =$	20	$495 \div 99 =$	20	$201 \div 67 =$
21	$106 \div 53 =$	21	$237 \div 79 =$	21	$203 \div 29 =$
22	$198 \div 66 =$	22	$243 \div 81 =$	22	$336 \div 56 =$
23	$160 \div 80 =$	23	$252 \div 63 =$	23	$420 \div 70 =$
24	$168 \div 84 =$	24	$158 \div 79 =$	24	$140 \div 28 =$
25	$236 \div 59 =$	25	$171 \div 57 =$	25	$114 \div 57 =$
26	$255 \div 51 =$	26	$189 \div 63 =$	26	$390 \div 78 =$
27	$171 \div 57 =$	27	$232 \div 58 =$	27	$205 \div 41 =$
28	$138 \div 69 =$	28	$248 \div 62 =$	28	$114 \div 38 =$
29	$168 \div 56 =$	29	$316 \div 79 =$	29	$294 \div 49 =$
30	$279 \div 93 =$	30	$294 \div 98 =$	30	$105 \div 15 =$
31	$295 \div 59 =$	31	$475 \div 95 =$	31	$744 \div 93 =$
32	$207 \div 69 =$	32	$236 \div 59 =$	32	$711 \div 79 =$
33	$345 \div 69 =$	33	$288 \div 72 =$	33	$441 \div 49 =$
34	$190 \div 95 =$	34	$261 \div 87 =$	34	$581 \div 83 =$
35	$440 \div 88 =$	35	$300 \div 75 =$	35	$243 \div 81 =$

Abakusda kvadrat ildizdan chiqarish

Abakusdan kvadrat ildizni chiqarish uchun, qo'shish va ayirish, ko'paytirish jadvali va sonlarni ko'paytirishni, hamda bir xonali sonlarning kvadratlarini bilishimiz kerak.

Na'muna tariqasida ushbu misolni olamiz: $\sqrt{676}$. Avvalo sonlarni o'ngdan chapga qarab 2 xonalik son ko'rinishda guruhlaymiz. Guruhlashdan so'ng ildiz ostidagi sonimiz ushbu ko'rinishga keladi: $\sqrt{6\ 76}$. Ushbu guruhlarimizni chapdan o'ngga qarab raqamlaymiz. 6-birinchi guruh, 76-ikkinchi guruh bo'ladi.

Berilgan sonni, ya'ni 676 ni abakusning o'ng qismiga qoralama sifatida kiritamiz. Keyin ixtiyoriy shunday son olingki, uning kvadrati (ikkilangani emas), birinchi guruhdagi son (6)ga teng yoki eng yaqin bo'lsin. $6 \geq X$

$1^2 = 1$	$2^2 = 4$	$3^2 = 9$	$4^2 = 16$	$5^2 = 25$
$9^2 = 81$	$8^2 = 54$	$7^2 = 49$	$6^2 = 36$	$10^2 = 100$

Ushbu kvadratlar jadvalidan foydalangan holda 1-guruhdagi raqam (6) uchun 2ni olamiz. Chunki 2 ning kvadrati 4 bo'ladi, 4 esa 6 ga eng yaqin son. Agar 3ni olsak, uning kvadrati (9) 6dan oshib ketadi. 2ni abakusning eng chap tomoniga javobning bir qismi sifatidan kiritamiz. Olingan javob (2)ni kvadratga ko'tarib, qoramadagi birinchi guruhdagi sondan ayiramiz. (2ni kvadrati 4, uni birinchi guruhdagi son (6)dan ayiramiz) Shunda birinchi guruhda 2 va ikkinchi guruhda 76 qoladi. Qoramada esa $\sqrt{276}$ holatiga keladi. Bu yerda ham xuddi bo'lishga o'xshab, qolgan qoldiq keying guruhdagi sonlar bilan bitta qiymat deb qabul qilinadi.

Navbatdagi bosqichimiz ikkilantirish: javob uchun olgan 2ni ikkilantiramiz (2ga ko'patiramiz). $2 \times 2 = 4$. Ikkilantirilgan sonni abakusning o'rtasiga, qoralama bilan javob uchun ajratilgan joyga halaqit bermaydigan joyga kiritamiz. Ikkilantirilgan son (4)ning o'ng tarafiga shunday noma'lum son qo'yingki va shu sonni yana o'sha songa ko'paytirganingizda natija 1-guruhdan qolgan qoldiq va 2-guruhga, ya'ni 276ga teng bo'lsin. Bu jarayonimiz ushbu ko'rinishga keladi: $4 * \times * = 276$ (bu yerda yulduzcha noma'lum son. 2 – birinchi guruhdan qolgan qoldiq. 76 – ikkinchi guruhdagi son).

Noma'lum sonni topish usuli: buning uchun tenglikning eng oxiridagi songa qaraladi (ya'ni $4* \times * = 27\underline{6}$ ga) va kvadratlar jadvalida qaysi sonning kvadrati o'sha raqam(6) bilan tugashi topiladi. O'sha raqamlardan bittasi noma'lum son sifatida olinadi va tenglik to'g'ri kelishi yoki kelmasligi tekshirib ko'riladi. Bu yerda kvadrati 6 bilan tugaydigan sonlar 4 va 6. Endi ulardan bittasini no'malum son o'rniga qo'yib ko'ramiz. Misol uchun 6ni qo'yib ko'raylik: $4* \times * = 276 \rightarrow 46 \times 6 = 276$. Agar tenglik to'g'ri bo'lsa, o'sha noma'lum son sifatida olgan sonimizni javobning ikkinchi qismi sifatida olib, abakusning chap tarafiga (yuqorida kiritgan 2ni oldiga) kiritamiz. Agar tenglik to'g'ri kelmasa, u holda ikkinchi variantimiz, ya'ni (4)ni to'g'ri javob deb qabul qilamiz. Bizda tenglik to'g'ri keldi, shuning uchun biz 6 sonini to'g'ri javob deb qabul qilamiz. Javob: $\sqrt{676} = 26$.

42-topshiriq

1	$\sqrt{144} =$	1	$\sqrt{1024} =$	1	$\sqrt{8464} =$
2	$\sqrt{196} =$	2	$\sqrt{1764} =$	2	$\sqrt{6561} =$
3	$\sqrt{576} =$	3	$\sqrt{1089} =$	3	$\sqrt{7744} =$
4	$\sqrt{676} =$	4	$\sqrt{1156} =$	4	$\sqrt{9801} =$
5	$\sqrt{625} =$	5	$\sqrt{1296} =$	5	$\sqrt{4489} =$
6	$\sqrt{361} =$	6	$\sqrt{1444} =$	6	$\sqrt{2809} =$
7	$\sqrt{841} =$	7	$\sqrt{1225} =$	7	$\sqrt{6241} =$
8	$\sqrt{961} =$	8	$\sqrt{1521} =$	8	$\sqrt{3136} =$
9	$\sqrt{729} =$	9	$\sqrt{1369} =$	9	$\sqrt{1681} =$
10	$\sqrt{784} =$	10	$\sqrt{2209} =$	10	$\sqrt{1296} =$
11	$\sqrt{576} =$	11	$\sqrt{2025} =$	11	$\sqrt{1369} =$
12	$\sqrt{900} =$	12	$\sqrt{1849} =$	12	$\sqrt{1936} =$
13	$\sqrt{121} =$	13	$\sqrt{1764} =$	13	$\sqrt{3969} =$
14	$\sqrt{289} =$	14	$\sqrt{1600} =$	14	$\sqrt{2704} =$
15	$\sqrt{484} =$	15	$\sqrt{2304} =$	15	$\sqrt{2601} =$
16	$\sqrt{256} =$	16	$\sqrt{2116} =$	16	$\sqrt{1681} =$
17	$\sqrt{400} =$	17	$\sqrt{1936} =$	17	$\sqrt{1444} =$
18	$\sqrt{441} =$	18	$\sqrt{2500} =$	18	$\sqrt{5776} =$
19	$\sqrt{196} =$	19	$\sqrt{1681} =$	19	$\sqrt{2401} =$
20	$\sqrt{225} =$	20	$\sqrt{8464} =$	20	$\sqrt{4624} =$
21	$\sqrt{256} =$	21	$\sqrt{4761} =$	21	$\sqrt{2304} =$
22	$\sqrt{289} =$	22	$\sqrt{3364} =$	22	$\sqrt{1089} =$
23	$\sqrt{169} =$	23	$\sqrt{2401} =$	23	$\sqrt{3481} =$
24	$\sqrt{324} =$	24	$\sqrt{3136} =$	24	$\sqrt{9025} =$
25	$\sqrt{361} =$	25	$\sqrt{5929} =$	25	$\sqrt{7225} =$
26	$\sqrt{529} =$	26	$\sqrt{4096} =$	26	$\sqrt{5929} =$
27	$\sqrt{625} =$	27	$\sqrt{7225} =$	27	$\sqrt{8836} =$
28	$\sqrt{729} =$	28	$\sqrt{9025} =$	28	$\sqrt{3136} =$
29	$\sqrt{784} =$	29	$\sqrt{3136} =$	29	$\sqrt{1849} =$
30	$\sqrt{961} =$	30	$\sqrt{8649} =$	30	$\sqrt{6561} =$

Javoblar:

1-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
5	7	8	5	9	9	9	9	9	3	4	8	7	7	6

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
6	9	7	5	3	8	6	9	8	5	0	2	4	7	5

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
4	5	7	3	6	9	3	0	6	8	8	3	5	8	3

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
4	7	2	5	5	9	8	5	8	9	6	9	7	5	1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
9	1	5	7	1	2	0	1	5	8	9	5	5	5	9

2- toshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
7	0	8	0	8	2	2	2	0	8	3	6	1	7	4

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
4	0	9	9	7	0	4	8	6	7	4	2	0	1	7

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
9	7	8	8	0	4	1	9	4	0	1	6	9	1	6

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
7	8	4	3	7	6	9	3	1	3	2	1	7	3	9

3-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
11	0	44	44	33	99	55	0	11	44	99	22	11	99	11

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0	88	33	11	22	66	44	33	0	33	11	22	33	99	44

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
11	88	33	66	77	11	33	88	11	0	11	66	55	77	99

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
77	66	0	99	11	22	22	11	77	0	33	33	11	22	22

4-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
5	99	23	12	74	49	31	5	25	19	50	62	24	55	60

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
51	3	48	16	44	29	10	89	82	12	84	0	98	63	4

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
89	52	96	86	16	26	11	49	4	39	25	36	45	79	75

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
67	10	94	35	11	16	87	3	52	55	88	69	56	52	46

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
44	64	9	69	91	14	5	65	79	60	39	11	12	33	26

5-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
50	78	99	48	15	6	23	59	83	27	55	70	19	18	23

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
42	21	11	89	48	24	1	15	10	49	30	35	44	51	64

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
10	22	62	12	77	0	2	9	50	29	89	93	29	3	13

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
28	98	79	97	26	28	87	34	55	10	88	92	13	77	46

6-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	7	4	9	1	4	8	2	9	4	2	5	5	2	4	4	7	2	5	3

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
7	6	4	1	3	8	4	4	4	6	0	7	1	8	5	4	3	1	8	9

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
4	6	2	3	5	0	5	9	4	2	1	5	4	5	1	8	7	3	4	4

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	9	3	5	6	6	1	9	4	3	4	0	9	1	0	2	1	3	2	3

7-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
3	0	8	1	2	4	4	0	1	0	3	3	5	2	2	3	2	3	4	9

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
9	6	4	0	1	0	2	4	5	2	9	2	0	8	0	3	3	5	6	5

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2	5	0	9	4	0	2	0	7	4	7	6	0	5	0	5	3	1	6	4

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2	2	1	2	1	2	4	3	5	4	4	3	2	7	4	3	5	9	2	4

8-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
4	4	4	7	3	5	0	7	2	3	3	2	1	4	2	3	5	3	9	4

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
4	0	9	4	7	3	9	4	3	2	4	1	0	4	2	6	1	1	9	9

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
4	4	3	3	9	8	9	9	2	4	1	3	2	5	3	4	4	3	1	4

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
4	7	2	7	4	2	5	7	4	5	9	7	7	4	5	9	0	7	4	9

9-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
4	1	4	5	9	2	0	5	2	9	3	8	3	1	1	3	3	8	8	8

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	2	1	4	7	3	5	0	5	3	5	3	9	5	2	8	5	3	2	5

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2	3	2	6	7	6	4	4	7	3	9	5	3	5	9	5	9	8	5	6

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	5	4	3	3	3	0	5	5	8	5	9	5	3	2	3	4	1	4	6

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
50	40	30	10	40	80	60	30	50	40	60	30	70	40	60

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
60	70	40	30	90	90	40	40	60	50	20	70	70	90	40

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
60	40	50	20	30	50	90	90	30	30	20	50	70	60	20

10-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
66	22	55	66	33	11	55	55	66	99	43	4	53	74	73

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0	43	31	37	30	57	30	57	93	21	63	87	36	56	59

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
67	57	23	63	44	33	65	73	63	34	45	75	35	34	32

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
66	65	34	46	13	54	49	23	58	25	49	58	89	44	39

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
54	55	24	31	24	39	86	45	12	85	57	63	21	34	57

11-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
18	15	10	14	11	16	19	13	12	11	19	15	10	13	13	13	16	25	16	13

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
12	18	12	11	12	15	17	36	11	18	11	13	13	17	15	19	19	13	15	13

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
15	16	13	16	26	11	17	17	12	17	16	11	13	13	17	10	14	13	16	13

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
12	15	12	15	13	14	12	6	13	19	16	11	16	12	13	15	26	11	15	12

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
15	12	19	14	12	15	13	10	13	14	16	11	10	14	15	13	13	11	13	14

12-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
18	12	13	10	16	19	13	16	15	10	15	15	16	15	17	10	15	11	11	10

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
11	16	16	17	15	16	15	25	12	11	12	13	12	11	15	15	18	12	26	18

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
20	22	13	20	17	12	16	26	19	11	12	19	16	19	14	25	10	10	19	21

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	19	11	22	11	21	20	12	16	23	19	15	18	14	15	20	14	22	20	15

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	18	14	18	16	20	13	25	26	21	35	22	25	16	14	15	15	20	22	16

13-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
11	15	20	10	15	16	15	16	16	11	15	10	12	12	11	16	10	16	16	19

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
10	11	11	10	14	18	15	16	16	11	15	10	10	10	11	11	10	16	20	25

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
15	11	15	11	16	15	11	18	16	16	9	15	12	12	19	15	11	15	18	10

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
13	15	15	16	14	11	10	6	5	1	10	10	15	15	15	13	16	13	3	10

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	1	2	21	27	13	20	14	16	19	21	21	14	14	14	19	25	14	27	19

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	21	14	16	21	20	25	20	20	21	13	11	22	17	25	14	25	22	20	22

14-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
25	12	11	13	11	14	25	12	17	13	13	20	26	20	20	11	10	20	17	10

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
14	12	10	27	20	10	14	26	10	20	10	18	19	9	2	1	1	6	8	0

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
20	25	20	10	25	17	13	20	19	20	10	13	14	25	13	11	18	13	12	11

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
17	14	10	17	18	20	11	25	10	10	17	20	11	14	20	18	1	9	20	25

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
0	14	6	1	1	2	14	26	18	20	10	27	14	10	20	27	25	12	14	10

15-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
25	20	15	26	20	21	25	21	19	24	13	20	21	15	21	20	20	13	20	20

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	26	27	30	18	30	14	18	31	25	13	26	27	30	18	20	21	20	20	20

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
19	14	14	15	13	18	31	15	23	20	21	10	20	20	12	12	12	18	28	13

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
18	20	20	17	26	14	28	27	27	11	26	14	14	21	12	10	11	21	11	29

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
24	25	17	26	26	25	28	28	20	19	17	24	10	22	25	21	12	20	26	25

16-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	21	18	14	25	27	27	19	19	30	31	25	22	17	28	12	20	24	15	26

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
25	20	26	22	21	19	24	11	17	21	28	20	15	15	16	17	20	26	30	21

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
28	18	13	20	19	10	20	16	25	10	21	20	21	19	21	21	25	15	26	25

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
15	28	25	23	21	21	19	20	19	14	23	21	20	28	10	25	20	21	20	20

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
25	26	15	25	21	21	19	21	20	21	10	23	18	21	10	19	20	13	18	18

17-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
14	20	15	21	15	20	10	17	19	11	24	20	14	21	21	15	20	15	25	13

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
20	20	16	20	20	15	17	19	19	19	3	20	14	11	20	22	24	23	20	19

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
20	20	18	15	19	15	19	19	22	20	12	21	20	21	19	2	20	18	19	19

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
20	30	24	11	22	18	20	22	22	26	24	20	30	24	25	28	22	18	25	21

18-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
26	21	18	22	17	21	23	20	20	15	14	20	18	21	20	23	10	20	14	25

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
15	13	23	14	15	14	19	16	22	14	19	20	21	20	24	24	20	20	20	27

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
19	20	22	21	20	22	10	20	14	20	25	15	13	23	15	22	16	22	14	19

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
17	25	20	12	11	21	25	21	10	29	11	20	11	11	13	14	20	18	10	21

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
18	32	24	30	22	28	20	28	21	25	16	22	24	10	19	24	13	25	11	32

19-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
13	19	10	20	20	22	20	20	21	13	19	20	20	20	21	20	20	20	25	13

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
13	20	17	10	20	20	20	20	10	21	22	20	20	20	20	17	20	20	10	23

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
12	11	15	14	16	21	16	15	26	15	20	20	20	17	20	20	10	26	20	23

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
13	20	20	19	20	20	13	20	25	20	20	20	13	10	20	22	17	20	16	13

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
14	14	29	26	24	18	23	15	14	27	15	25	25	20	24	27	21	21	21	12

20-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
38	33	23	19	19	26	77	58	88	26	60	60	16	92	88

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
83	16	29	33	40	24	30	88	3	98	7	51	25	77	29

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
48	95	39	21	47	88	77	4	12	37	16	38	98	1	54

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
66	39	79	88	30	29	9	20	2	99	21	18	90	81	20

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
38	19	61	99	88	19	81	80	59	9	9	9	97	4	42

21-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
18	99	29	86	61	28	11	52	87	4	88	79	47	25	21

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
69	79	32	86	87	33	10	59	84	49	30	37	30	89	88

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
97	0	22	69	36	64	89	72	75	96	98	46	84	20	90

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
77	29	22	12	8	14	85	12	59	42	63	19	79	3	20

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
66	21	9	40	85	9	11	3	27	19	96	99	92	18	57

22-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
76	23	60	28	14	64	20	33	78	19	63	76	29	85	53

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
29	49	29	41	28	18	16	38	23	85	45	31	69	34	79

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
40	39	4	29	36	37	33	63	36	30	13	81	35	22	34

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
20	91	69	38	86	4	33	29	11	34	4	85	41	86	3

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
95	90	46	59	54	40	86	22	96	22	75	38	67	54	55

23-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
45	19	45	34	69	21	34	14	16	23	38	40	14	15	4

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
71	39	54	40	95	89	30	14	39	82	64	80	45	23	15

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
95	30	36	79	37	20	90	80	25	20	15	85	80	84	35

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
4	36	90	39	23	35	66	24	80	89	46	90	65	30	45

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
89	27	34	69	49	29	78	29	64	53	65	97	30	38	54

24-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
18	80	34	81	44	8	41	29	74	20	39	67	82	17	33

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
68	29	82	40	17	38	25	85	85	82	78	59	25	23	73

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
47	40	19	90	17	80	57	90	18	26	84	82	18	17	69

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
26	19	41	3	68	83	29	50	87	12	69	65	56	76	57

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
35	80	25	15	69	26	66	46	27	27	22	69	8	91	41

25-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
19	62	24	17	24	19	20	67	29	18	24	30	72	40	78

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
23	58	40	69	79	28	19	81	40	71	79	22	63	66	7

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
29	70	40	69	32	27	66	79	69	37	21	33	67	30	81

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
34	8	99	12	83	73	8	20	83	68	23	65	70	23	77

26-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
89	25	73	40	29	77	70	24	33	64	24	90	29	20	70

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
40	80	40	38	76	79	19	24	20	31	62	59	70	66	41

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
78	8	24	85	79	29	61	40	27	24	40	67	40	80	80

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
4	28	90	19	39	44	42	65	20	22	39	73	19	59	14

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
70	34	59	24	40	62	67	79	9	29	20	79	90	88	42

27-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
20	25	30	19	30	78	39	61	4	38	30	65	26	19	68

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
40	90	20	40	34	65	29	40	22	40	20	34	1	28	31

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
38	29	23	62	20	34	37	30	19	29	24	65	12	24	20

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
22	46	45	66	30	18	59	29	19	24	98	22	83	29	29

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
66	59	24	84	19	79	89	14	70	29	29	34	68	18	93

28-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
27	84	12	86	34	38	70	64	19	19	34	44	68	37	29

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
88	31	26	15	7	25	9	18	80	24	86	24	63	22	70

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
35	55	25	21	69	30	98	52	35	46	25	25	67	75	49

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
80	52	94	30	25	77	56	81	67	37	85	65	19	90	53

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
70	77	9	19	90	51	80	62	59	15	80	85	90	70	80

29-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
23	39	6	5	53	54	25	62	59	16	7	42	17	33	32

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
28	24	7	6	83	38	16	28	79	7	31	24	15	18	94

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
36	7	15	24	29	49	37	37	20	33	29	26	32	42	33

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
44	13	23	44	25	39	38	49	17	22	23	16	32	12	27

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	89	84	53	34	20	62	70	93	52	0	3	71	83	48

30-topshiriq

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
26	44	42	24	11	26	23	36	49	24	30	29	99	19	49

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
36	72	94	1	10	1	44	35	19	29	24	9	24	49	15

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
40	49	71	80	9	55	85	69	14	64	0	44	85	33	50

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
25	10	7	79	77	29	42	18	92	99	91	85	72	83	44

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
67	74	84	64	94	54	5	83	34	56	99	44	76	25	55

31-topshiriq

1	2	3	4	5	6	7	8	9	10
249	58	341	163	42	198	142	170	25	136

1	2	3	4	5	6	7	8	9	10
613	301	134	180	292	94	110	54	594	363

1	2	3	4	5	6	7	8	9	10
73	194	167	182	634	38	47	170	249	289

32-topshiriq

1	2	3	4	5	6	7	8	9	10
154	1712	989	1013	892	859	106	1231	468	765

1	2	3	4	5	6	7	8	9	10
1936	1059	468	2017	1662	775	1177	1271	397	681

1	2	3	4	5	6	7	8	9	10
1243	704	782	1208	1993	1965	930	558	989	646

1	2	3	4	5	6	7	8	9	10
1486	2049	470	659	1509	698	383	922	1434	1158

33-topshiriq

1	2	3	4	5	6	7	8	9	10
439	964	1128	1771	315	1059	923	1478	1687	941

1	2	3	4	5	6	7	8	9	10
2027	1555	2485	2112	1869	1214	1987	1894	1461	1648

1	2	3	4	5	6	7	8	9	10
13965	8065	6243	11382	13412	695	7455	5844	7427	14414

1	2	3	4	5	6	7	8	9	10
11760	15896	12947	6585	3790	16360	1739	10416	7003	14644

1	2	3	4	5	6	7	8	9	10
11838	6194	433	11031	663	1786	491	11844	3413	13552

34-topshiriq

1	528	1	82	1	51
2	177	2	329	2	184
3	336	3	172	3	196
4	248	4	312	4	219
5	624	5	360	5	312
6	72	6	513	6	549

7	80	7	455	7	174
8	351	8	185	8	720
9	174	9	768	9	424
10	246	10	192	10	266
11	26	11	318	11	666
12	140	12	372	12	472
13	69	13	112	13	208
14	480	14	40	14	285
15	696	15	66	15	184
16	128	16	228	16	272
17	585	17	322	17	238
18	102	18	315	18	228
19	161	19	160	19	756
20	288	20	465	20	450
21	1244	21	450	21	68
22	132	22	118	22	192
23	585	23	224	23	130
24	120	24	567	24	189
25	161	25	222	25	592
26	288	26	95	26	72
27	282	27	592	27	99
28	434	28	189	28	90
29	102	29	130	29	275
30	350	30	392	30	180
31	371	31	68	31	178
32	525	32	450	32	102
33	430	33	756	33	108
34	182	34	228	34	112
35	282	35	238	35	155

35-topshiriq

1	1410	1	2105	1	1848
2	2400	2	940	2	6570
3	4200	3	2008	3	2859
4	2700	4	504	4	2352
5	1450	5	1500	5	4218
6	1560	6	1632	6	804
7	2280	7	672	7	1012
8	1824	8	1700	8	3720
9	1226	9	2560	9	5301
10	1032	10	1772	10	2664
11	2715	11	804	11	3375
12	1380	12	642	12	2322
13	1095	13	3180	13	4690
14	1023	14	1680	14	2589
15	612	15	1134	15	2312
16	2144	16	4128	16	5047
17	2168	17	1220	17	3143
18	1155	18	280	18	2035
19	1599	19	1288	19	763
20	1630	20	3368	20	390
21	1856	21	1959	21	526
22	1050	22	1844	22	574
23	3648	23	1512	23	2198
24	1689	24	1248	24	1024
25	620	25	530	25	753
26	1015	26	726	26	260
27	1064	27	3612	27	942
28	260	28	1675	28	1244
29	2118	29	4088	29	2433
30	1023	30	3675	30	444

31	2760	31	2472	31	2079
32	2331	32	1044	32	508
33	2785	33	4438	33	824
34	900	34	4840	34	1899
35	1004	35	2816	35	1776

36-topshiriq

1	928	1	6045	1	2952
2	6432	2	767	2	1896
3	2553	3	5166	3	7008
4	1188	4	1092	4	6188
5	3397	5	3382	5	988
6	1976	6	1760	6	2340
7	2698	7	3120	7	1118
8	2976	8	1235	8	1596
9	2916	9	1425	9	1460
10	3572	10	7820	10	3328
11	7392	11	3780	11	2262
12	494	12	1715	12	852
13	2628	13	4875	13	897
14	1128	14	1395	14	1568
15	6716	15	1575	15	3078
16	3332	16	5850	16	4582
17	1410	17	2915	17	3213
18	2565	18	2175	18	574
19	6308	19	980	19	975
20	6225	20	2860	20	1624
21	1200	21	1425	21	2747
22	2989	22	6460	22	3626
23	1564	23	1200	23	795
24	1334	24	2550	24	4316

25	7728	25	5795	25	1632
26	4361	26	1968	26	3060
27	1634	27	2680	27	546
28	4800	28	598	28	1005
29	1786	29	7708	29	812
30	1426	30	1591	30	817
31	6624	31	1343	31	1092
32	3021	32	4264	32	475
33	1988	33	5229	33	2376
34	3024	34	1365	34	1666
35	1652	35	3000	35	6370

37-topshiriq

1	31200	1	19791	1	67462
2	2106	2	86762	2	34965
3	9200	3	14023	3	41164
4	60828	4	47236	4	51388
5	78455	5	57984	5	28686
6	70275	6	10830	6	11450
7	64239	7	13056	7	42423
8	22610	8	4270	8	33264
9	46004	9	72600	9	85529
10	36708	10	85008	10	54152
11	15880	11	32076	11	4815
12	9855	12	24156	12	25376
13	45105	13	35080	13	32936
14	12467	14	28855	14	7294
15	6402	15	23010	15	47096
16	6456	16	16191	16	6480
17	33528	17	24816	17	27871
18	40590	18	20433	18	10185

19	8569	19	48861	19	70905
20	17487	20	19929	20	7049
21	28896	21	40809	21	78752
22	26133	22	20961	22	9048
23	40032	23	13724	23	4114
24	25677	24	36960	24	22540
25	52266	25	79020	25	10770
26	65856	26	48080	26	25389
27	21386	27	8721	27	9248
28	9630	28	35847	28	16562
29	47808	29	59356	29	15376
30	25602	30	50991	30	42420
31	10881	31	33580	31	19791
32	12560	32	44890	32	47236
33	28600	33	2527	33	4270
34	42420	34	57780	34	28896
35	45505	35	51060	35	4270

38-topshiriq

1	119915	1	8239	1	6216
2	65508	2	35596	2	14383
3	293188	3	5950	3	52855
4	466092	4	27968	4	20398
5	214347	5	14025	5	39715
6	165300	6	9128	6	17003
7	68688	7	4428	7	38222
8	110360	8	17358	8	21888
9	217448	9	10224	9	10542
10	106296	10	62920	10	13674
11	273598	11	32349	11	35188
12	575652	12	7620	12	34818

13	65682	13	17004	13	4928
14	116844	14	25546	14	6802
15	91902	15	25998	15	48393
16	384826	16	3682	16	38106
17	244114	17	5778	17	33945
18	130062	18	4384	18	14952
19	104652	19	6660	19	4572
20	60114	20	5610	20	6216
21	314382	21	23408	21	54090
22	638448	22	14416	22	59356
23	368214	23	16835	23	33580
24	214268	24	23672	24	2527
25	460598	25	2698	25	28600
26	54760	26	12508	26	10830
27	240948	27	18864	27	6402
28	33235	28	11008	28	8569
29	255348	29	4900	29	17487
30	21840	30	7548	30	22610
31	58828	31	9000	31	25677
32	429348	32	20328	32	52266
33	201235	33	9576	33	26133
34	74732	34	25998	34	32936
35	178044	35	3682	35	29536

39-topshiriq

1	82	1	35	1	670
2	88	2	75	2	432
3	52	3	77	3	955
4	47	4	45	4	598
5	22	5	51	5	180
6	74	6	207	6	617

7	55	7	138	7	882
8	22	8	204	8	541
9	47	9	107	9	920
10	64	10	101	10	252
11	31	11	408	11	426
12	28	12	105	12	653
13	82	13	103	13	339
14	84	14	208	14	884
15	87	15	304	15	749

40-topshiriq

1	71	1	34	1	905
2	62	2	21	2	408
3	63	3	76	3	601
4	72	4	42	4	305
5	82	5	45	5	506
6	273	6	83	6	906
7	92	7	22	7	604
8	62	8	45	8	401
9	36	9	59	9	906
10	37	10	23	10	703
11	64	11	74	11	408
12	27	12	49	12	506
13	61	13	123	13	907
14	93	14	79	14	203
15	42	15	442	15	305
16	51	16	108	16	752
17	60	17	104	17	504
18	62	18	13	18	815
19	30	19	401	19	963
20	61	20	108	20	519

21	66	21	438	21	229
22	51	22	148	22	866
23	57	23	283	23	728
24	50	24	123	24	888
25	55	25	263	25	216
26	21	26	145	26	684
27	23	27	161	27	598
28	79	28	275	28	609
29	49	29	136	29	676
30	70	30	114	30	744
31	36	31	448	31	948
32	72	32	228	32	159
33	84	33	153	33	264
34	91	34	421	34	740
35	41	35	222	35	518

41-topshiriq

1	8	1	2	1	2
2	4	2	4	2	3
3	8	3	5	3	5
4	4	4	4	4	5
5	8	5	4	5	5
6	2	6	2	6	3
7	8	7	2	7	2
8	8	8	3	8	3
9	8	9	3	9	5
10	5	10	2	10	2
11	7	11	3	11	5
12	5	12	2	12	4
13	4	13	5	13	3
14	6	14	3	14	4

15	3	15	2	15	2
16	7	16	5	16	2
17	9	17	5	17	3
18	7	18	5	18	5
19	9	19	3	19	2
20	2	20	5	20	3
21	2	21	3	21	7
22	3	22	3	22	6
23	2	23	4	23	6
24	2	24	2	24	5
25	4	25	3	25	2
26	5	26	3	26	5
27	3	27	4	27	5
28	2	28	4	28	3
29	3	29	4	29	6
30	3	30	3	30	7
31	5	31	5	31	8
32	3	32	4	32	9
33	5	33	4	33	9
34	2	34	3	34	7
35	5	35	4	35	3

42-topshiriq

1	12	1	32	1	92
2	14	2	42	2	81
3	24	3	33	3	88
4	26	4	34	4	99
5	25	5	36	5	67
6	19	6	38	6	53
7	29	7	35	7	79
8	31	8	39	8	56

9	27	9	37	9	41
10	28	10	47	10	36
11	24	11	45	11	37
12	30	12	43	12	44
13	11	13	42	13	63
14	17	14	40	14	52
15	22	15	48	15	51
16	16	16	46	16	41
17	20	17	44	17	38
18	21	18	50	18	76
19	14	19	41	19	49
20	15	20	92	20	68
21	16	21	69	21	48
22	17	22	58	22	33
23	13	23	49	23	59
24	18	24	56	24	95
25	19	25	77	25	85
26	23	26	64	26	77
27	25	27	85	27	94
28	27	28	96	28	56
29	28	29	56	29	43
30	31	30	93	30	81