

Machine I/O - 1 [ 7 Sets ]  
Unsolved

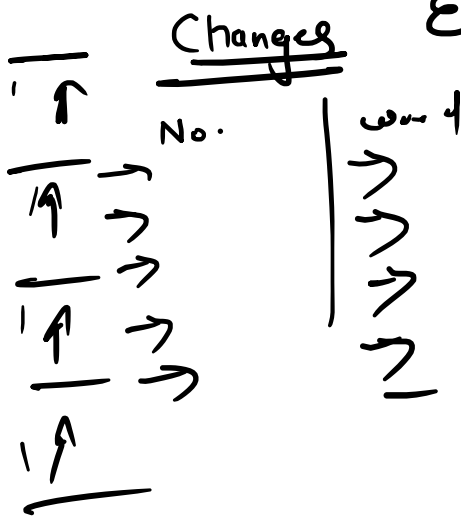
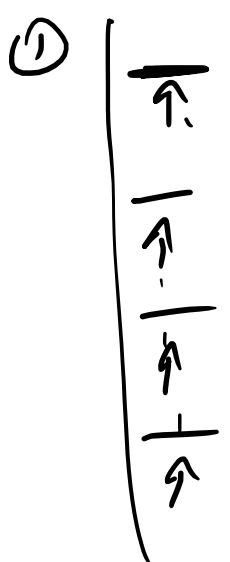
↓  
1 Set x Solution

Input: Manual Desire Create Secure Friday Parrot Crypto  
 Step1: Amunla Sederi Erceta Ceseru Rfdiya Aprrto Yrcotp  
 Step2: Munl Sdri Rcta Csru Rfdiya Apto Yrcotp  
 Step3: Mul Sri Rca Csru Riya Ao Yrco  
 Step4: 251 2810 1917 2418 1917 1614 4010

Manual  
Amunla  
Last Letter (2)  
: Consonant

Reverse Desire  
Sederi  
: Vowel =

Input: Flower Pushpa Dragon Narrow Profit Inside Octave



Eliminate → who neighbours  
 vowels Eliminate: Repeating letters

→ N(14)  
 → D(4)  
 → T(20)  
 → F(6)  
 → D(4)  
 → P(16)

**Q12. Which is the 3<sup>rd</sup> letter of the 2<sup>nd</sup> word from the left end in step 1?**

**Q13. How many letters are there between 3<sup>rd</sup> letter of the 4<sup>th</sup> word from the right end and 3<sup>rd</sup> letter of the 2<sup>nd</sup> word from the right end in step 2 ?**

**Q14. How many letters are there in total in step 3?**

**Q15. What is the difference between 4<sup>th</sup> highest & 3<sup>rd</sup> lowest number in step 4?**

Input: Flower Pushpa Dragon Narrow Profit Inside Octave

Step1: Lfwore Supaph Rdgano Anrrwo Rpfoti Sniedi Tcoeva

Step2: Lfwore SuaH Rdgano Anwo Rpfoti Sned Tcoeva

Step3: Lwore Sua Rgao Awo Roi Se Coea

Step4: 177 2018 333 1614 279 2414 42

App Update Right

Left

Words → Alphabetical | Number → Ascending

Input	Flower	15	Pushpa	18	Narrow	24	5
①	Flor	15	Pushpa	18	Narrow	24	5
②	Nar	15	Pushpa	18	Narrow	24	5
③	Profit	15	Pushpa	18	Narrow	24	5
④	Push	15	Pushpa	18	Narrow	24	5

Profit =  
10 12

Example	Profit
Word	10
Flower	15
Narrow	15
Profit	18
Pushpa	24

7 boxes with different number of balls are arranged in three group A, group B and group C. Each box is coded after following certain rule step by step as given below:

After boxes are coded each box are rearranged in ascending order of their box code. First three boxes are from group A, next two boxes are from group B and remaining two boxes are from group C.

Number of Item	Step I	Step II	Step III	Step IV	Box Code
381 odd	127	254	40	16	10
423 odd	141	282	32	25	15
324 even	81	243	24	36	18
484 even	121	363	54	81	27
236 even	59	177	49	169	115
267 odd	89	178	56	121	119
864 even	216	648	192	144	128

Perfect Square

Digit Level

$\div 3$  (odd)

$\div 4$  (even)

Original Number

$\times 2 \neq$  (odd)

$\times 3 \neq$  (even)

P.O.D (Product of dig.)

$2^x 5^y \rightarrow 40$

$2^x 2^y \rightarrow 32$

$2^4 3 \rightarrow 24$

Number of item: 224, 273, 448, 636, 663, 684, 813.

Sum of sq. dig.

$4^2 + 0^2 = 16$

$3^2 + 2^2 = 13$

$2^2 + 4^2 = 20$

$5^2 + 4^2 = 41$

40  $\rightarrow$  16

32  $\rightarrow$  13

24  $\rightarrow$  20

54  $\rightarrow$  41

\*

Number - (P.O.D.)

5. What is the difference of box code from group C?

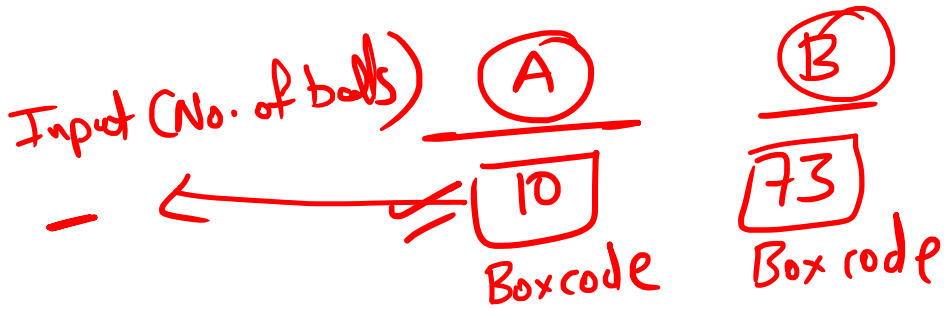
- A. 44
- ~~B. 68~~
- C. 74
- D. 56
- E. None of these

(B) (196-128)

813  
- 448  
-----  
365

6. What is the difference between number of balls from first box from group A and last box from box B?  
(Consider first box from top to bottom)

- A. 165
- B. 215
- ~~C. 175~~ (E)
- D. 363
- ~~E. None of these~~



7. What is the value in step III of the second box from group A?

- ~~A. 16~~
- B. 40
- C. 54
- D. 32
- ~~E. None of these~~

~~C~~ A



8. What is the sum of value from step IV of first box from all the three groups taken together?

- A. 218
- B. 185
- ~~C. 196~~
- D. 155
- E. None of these

C

A

B

C

10



18



128

Step-IV 16 + 36 + 144

Number of Item	Step I	Step II	Step III	Step IV	Box Code
813	271	542	40	16	10
273	91	182	16	49	13
663	221	442	32	25	15
684	171	513	15	36	18
448	112	336	54	81	73
224	56	168	48	144	128
636	159	477	196	256	196

Following logic are applied in step by step to determine box code:

Case (1): If number of items are odd.

For Step I: divide item number by 3.

For Example:-  $381/3 = 127$

For Step II: Multiply number obtained from step I by 2.

For Example:-  $127 \times 2 = 254$

Case (2): If number of items are even:

For step I: divide number by 4.

For Example:  $324/4 = 81$

For Step II: Multiply number obtained from step I by 3.

For Example:-  $81 \times 3 = 243$

Remaining steps for both odd and even numbers are same.

For Step III: Product of digits from step II are taken.

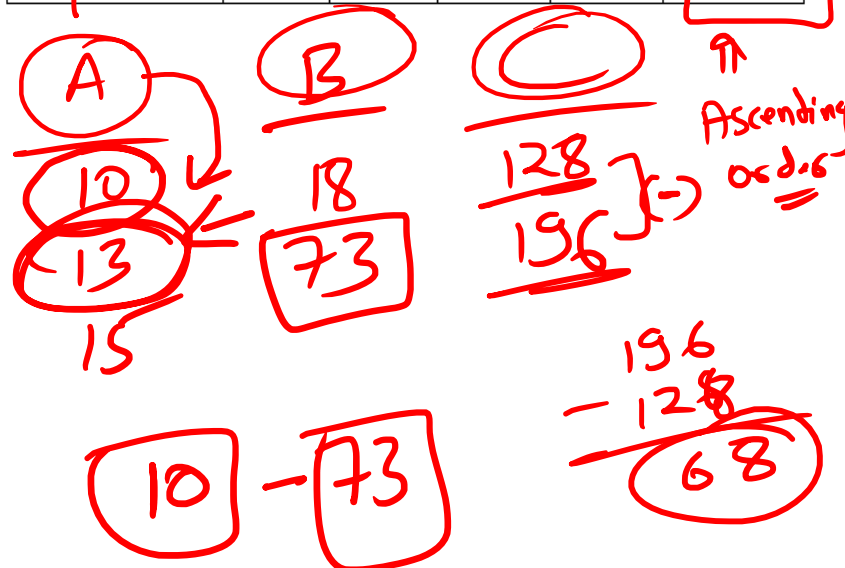
For Example:-  $(2 \times 5 \times 4) = 40$

For Step IV: Square of sum of digits from step III are taken.

For Example:-  $(4 + 0) = 4^2 = 16$

For Box Code:- difference of number and product of digits are taken from step IV.

For Example:-  $16 - (1 \times 6) = 10$





Input

729	348	636
438		724
926	472	396

Step I

638	259	727
529		635
837	563	287

Step II

687	263	737
535		629
827	559	238

Step IV

I5D	E1F	E2D
C1H		I1F
K1B	C4H	E2B

Step III

I56	E18	E21
C15		I18
K14	C45	E24

Input

369	724	985
438		683
773	328	876

6 → D(4)  
8 → F(6)  
1 → D(4)

687  
↓  
756

6 38

Observational Method

Attempt

(odd) 7  
↓ (-2)  
E(5)

odd → -2  
even → +3

corresponding letters

(even)  
6 | 87    2 | 63  
↓ (+3)    ↓ (+3)  
I (9)    E (5)

-1 (7 29)  
6 38

odd →  
even →

odd → +3  
even →

9. What is the product of digits of the number at cell 3x1 in step II?

- A.378
- B.144
- C.324
- D.216
- E. None of these



10. Which of the following represents the code at 1x3 in step IV?

- A.K1Z
- B.L3X
- C.Z1M
- D.K3Y
- E. None of these



**11. What is the difference between the numbers formed in the cell 1x2 and 3x1 in step II?**

**A.43**

**B.72**

**C.55**

**D.102**

**E.56**

**12. Which of the following cell number represents the code "Z15" in step III?**

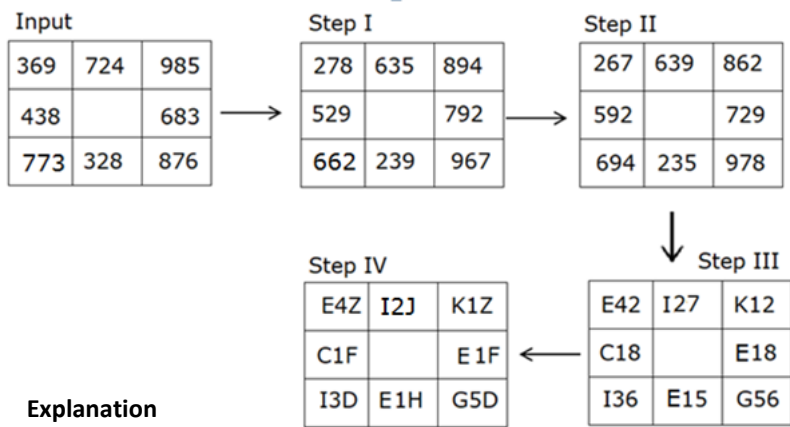
**A.3x3**

**B.1x2**

**C.3x1**

**D.2x3**

**E.None of these**



### Explanation

We have:

Following logic is applied to get step by step final result:

For Step I: from each odd digit '1' is subtracted and from each even digit '1' is added within the three-digit number.

For Step II: last two digits of the number formed from step 1 are interchanged with cell number as given below in the form of (Row, Column).

(1, 1) -> (3, 3)

(1, 2) -> (3, 2)

(1, 3) -> (3, 1)

(2, 1) -> (2, 3)

For step III: we have two possible conditions:

Case (1): If the first digit from step II is an even digit, then add '3' and replace that number with a corresponding letter in English alphabetical series, similarly multiply last two digits.

For Example: 687 -> I56

Case (2): If the first digit from step II is odd, then subtract '2' and replace that number with a corresponding letter in English alphabetical series, similarly multiply last two digits.

For Example: 737 -> E21

For Step IV: We have two possible conditions:

Case (1): If the last digit from step III is an even digit, then subtract '2' and replace that number with a corresponding letter in English alphabetical series.

For Example:- I56 -> I5D

Case (2): If the last digit from step III is odd, then add '3' and replace that number with a corresponding letter in English alphabetical series.

For Example: E21 -> E2D

Input:  

4	3	6	7	2	8	5	4	6	9	6	2	3	8	2	7
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Step I: 

3	3	2	3	4	3	4	6
---	---	---	---	---	---	---	---

Step II: 

1	5	<del>3</del>	<del>6</del>	3	6
---	---	--------------	--------------	---	---

Step III: 

6	2	6	2	<del>5</del>	<del>4</del>	5	4
---	---	---	---	--------------	--------------	---	---

Step IV: 

<del>3</del>	<del>4</del>	<del>3</del>	<del>8</del>	3	8
--------------	--------------	--------------	--------------	---	---

Input:  

9	8	2	4	4	8	3	7	7	5	3	2	3	8	2	6
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

30  
+ 8  
38

6, 2  
x  
5, 4  
x  
3, 8

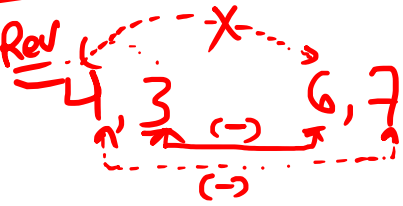
15 1, 5  
=

1 5  
+  
~~5~~ 1  
6, 2

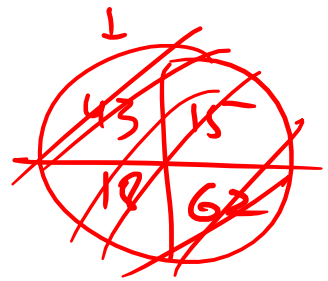
2 + 6 = 8  
3 + 6 = 9  
4 5

5 4

1, 5  
x  
1, 5  
-  
1, 5



3, 3  
x  
3, 3  
-  
3, 3  
+  
6  
-  
1, 5



SOD -> POD



POD

13) What is the difference of the square of the digits in step IV of the given input?

A. 12 B. 13 C. 5 D. 16 E. None of these

14) What is different of the square of the numbers obtained in step II of the given input?

A. 1296 B. 832 C. 1071 D. 1362 E. 616

15) What is the sum of the digits of the highest number in step III of the given input?

A. 5 B. 8 C. 9 D. 12 E. None of these

## Input:

9 8   2 4   4 8   3 7   7 5   3 2   3 8   2 6

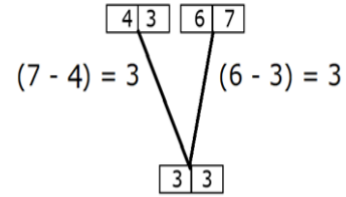
Step I: 5 6   3 5   5 2   3 6

Step II: 4 5   2 7

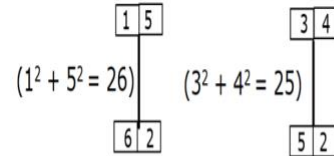
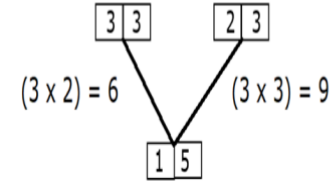
Step III: 1 4   3 5

Step IV: 2 3

Step I: In this step following logic is applied:

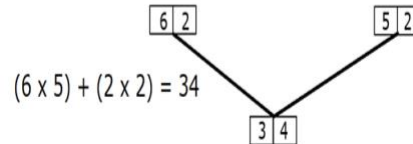


Step II: In this step following logic is applied:



Clearly, in step 3, the digits of the result are reversed.

Step IV: In this step following logic is applied:



<u>Input</u>	<u>Step 1</u>	<u>Step 2</u>	<u>Step 3</u>	<u>Step 4</u>
Hotstar	Ystemg32	BV11		
Posted	Optsdē20	(B) GWQ	167114 → 467	
Sysetgm	Ratstoh10	GZ1		
Wait	Hcraeg8	IZ8		
Please	Lpaees21	HZ5	217832	(D) H356
Charge	Awti43	DZ19		
Zonal	Eno10	LV1	207429	18028
Against	(A) Tsniaga19	GZ19		
One	Lanoz14	AZ9		

Highest PV Keys  
Smallest PV Keys

No. of letters

4mins

odd

Reverse → odd

1st-Last  
Prs

Posted  
tsde  
Pair Interchange

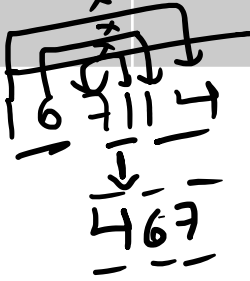
Even

1st+last

Even

→  
-  
→

Pairing





Q16. If all the letters are replaced with opposite letters (according to the alphabetical order) in (A) then its letters are written in reverse alphabetical order from left to right so find the 4<sup>th</sup> letter from the left in this new word?

- A. T
- B. R
- C. Z
- D. M
- E. H

Handwritten notes for Q16: A box containing "Petu", a box containing "Focus", the word "opposite" with a diagonal slash through it, and a box containing "HW". There are also some scribbles and double lines indicating a process or correction.

Q17. What will be the sum of squared digits of the alphabetical place values of letters in (B) ?

- A. 49
- B. 56
- C. 62
- D. 74
- E. 13

Handwritten notes for Q17: A box containing "HW" and some scribbles.

Q18. What will be subtraction of (C) and (D) ?

- A. 307
- B. 180437
- C. 20307
- D. 1837
- E. None of these

Handwritten notes for Q18: A box containing "HW" and some scribbles.

**Logic:**

**Step 1 – If number of letters in the word is odd, then reverse the order of the word and if the number of letters in the word is even, then exchange 1<sup>st</sup> letter with 2<sup>nd</sup> letter, 3<sup>rd</sup> letter with 4<sup>th</sup> letter and so on. For number add the alphabetical place value of 1<sup>st</sup> and last letter if number of letter is even and subtract the alphabetical place value of 1<sup>st</sup> and last letter if number of letter is odd.**

**Step 2 – Reverse of highest and lowest letter is written and for number add sum of the digits and product of the digits of the number.**

**Step 3 – Add all the place values of the 1<sup>st</sup> letter then add all the place values of the 2<sup>nd</sup> letter and add all the numbers and write it in this order.**

**Step 4 – Write product of 1<sup>st</sup> and last digit, 2<sup>nd</sup> and 2<sup>nd</sup> last digit and so on.**