

Machine Input

Direction (1-2) Read the following information carefully and answer the given questions.

Input: 17 49 22 71 33 35 41 63 78 44

Step I: 17 22 49 71 33 35 41 63 78 44

Step II: 33 35 17 22 49 71 41 63 78 44

Step III: 33 53 71 22 94 17 14 36 87 44

Step IV: 35 33 72 12 91 47 13 46 84 74

As per the rule followed in the above steps, select the appropriate step for the given input and answer the questions.

Input: 12 46 32 11 19 36 89 41 56 53 75 81

- 91 is related to 21 in step III in the same way 11 is related to 32 in the step I then 92 is related to which of the following in step IV in the same way?
(A) 66 (B) 84
(C) 11 (D) 51
(E) 91
- What is the sum of the numbers which is fourth from the left end in step II and fourth from the right in the last step?
(A) 88 (B) 75
(C) 44 (D) 31
(E) 94

Direction (3-5): Study the following information carefully and answer the questions given below:

\$ F 3 6 N @ 9 K T Q 5 C % 8 B # 7 D S * H
4 W L

STEP I- The numbers which are immediately preceded by symbol and immediately followed by an alphabet are arranged in the end of the series in increasing order. (Arranged immediate after L)

STEP II- The odd numbers which are immediately preceded by an alphabet interchange their position with respect to the alphabet just before it.

STEP III- The alphabets which are immediately followed by a symbol are arranged in alphabetical order between H and 4 of step II.

Note: (STEP II is applied after STEP I and STEP III is applied after STEP II)

- What is the sum of number which is sixth from right end in step I and eight from left end in step III?
(A) 8 (B) 7
(C) 9 (D) 11
(E) 13
- How many alphabets are immediately preceded and immediately followed by numbers in step II?
(A) one (B) two
(C) three (D) four
(E) five
- How many symbols are immediately preceded by alphabets in Step III ?
(A) one (B) two
(C) three (D) four
(E) five

Direction (6-8): Study the given information and answer the questions:

When a number arrangement machine is given an input line of numbers, it arranges them following a particular rule. The following is an illustration of an input and its rearrangement.

Input: 65 18 41 53 72 34 89 26
Step 1 195 36 123 159 144 68 267 52
Step 2 159 159 36 303 76 335 215
Step 3 45 45 18 0 42 45 10
Step 4 22.5 22.5 9 0 21 22.5 5

Step IV, is the last step of the above arrangement as the intended arrangement is obtained.

As per the rules followed in the given steps find out the appropriate steps for the given input:

Input : 25 22 93 56 17
74 39

6. What is the sum of the numbers at both the ends in step III of the given arrangement?
(A) 36 (B) 63
(C) 60 (D) 123
(E) None of the above
7. Which element is 2nd to the right of the one which is 4th to the left element in step I?
(A) 112 (B) 44
(C) 148 (D) 75
(E) None of these
8. What is the products of the numbers which is 3rd from the right end and 3rd from the left end in final step of the given arrangement?
(A) 189 (B) 72
(C) 13.5 (D) 180
(E) No such step

Direction (9-12): A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input- njes glfu 53 18 31 44 wird dect
Step I: yktf 106 njes glfu 18 31 44 dect
Step II: plgu 88 yktf 106 glfu 18 31 dect
Step III: inhw 62 plgu 88 yktf 106 18 dect

Step IV: fgev 36 inhw 62 plgu 88 yktf 106
Answer the following questions based on the following input: -
Input- olpu htqs 21 73 48 9 xcek bdgv

9. What will be the resultant if fifth number from the left end of step I is added to fifth number from right end of step III?
(A) 153 (B) 106
(B) 117 (C) 98
(D) None of these
10. What will be the third step of the given input?
(A) Step III-42 jvsu qnrw 96 zegm 146 9 bdgv
(B) Step III- jvsu 42 qnrw 96 zegm 146 bdgv 9
(C) Step III- jvsu 42 qnrw zegm 96 146 9 bdgv
(D) Step III- jvsu 42 qnrw 96 zegm 146 9 bdgv
(E) None of these
11. Which of the following word/number will be fourth to the left of sixth from the left end in step II?
(A) 96 (B) 146
(C) zegm (D) bdgv
(E) None of these
12. What will be the twice of the difference of sixth number from the left end of step I and fifth number from right end of step IV?
(A) 14 (B) 12
(C) 28 (D) 44
(E) None of these

Direction (13-17): Study the following information to answer the given questions:

A word and number arrangement machine when given an input line of numbers rearranges itself following a particular rule.

The following is an illustration of input and re-arrangement.

Input: 575345 182561 251567 889481
913456 342366

Step I: 545375 161582 267551 881489
956413 366342

Step II: 161582 267551 366342 545375
881849 956413

Step III: 115268 155726 332466 355574
194888 135946

Step IV: 91526 75572 93246 75557 99488
73594

Step V: 73594 75557 75572 91526 93246
99488

Step V is the last step of the rearrangement for the above input. As per the rules followed in the above steps, find out in each of the following questions the appropriate steps for the given input.

Input: 214261 130145 333421 715620
312451 123456

13. What will be the sum of the digits of the extreme left number in Step 1?

(A) 16 (B) 14
(C) 15 (D) 17
(E) 18

14. Which is the 4th number from the left in step 2?

(A) 321433 (B) 145131
(C) 156423 (D) 351412
(E) 72161

15. How many even numbers are there in Step 3?

(A) One (B) Two
(C) Three (D) Six
(E) None

16. What will be the difference between the first and the fourth numbers from the left in step 4?

(A) 1782 (B) 1382
(C) 1582 (D) 1982

(E) 1482

17. How many numbers have repeated digits in Step IV?

(A) One (B) Two
(C) Three (D) Four
(E) Five

Direction (18-20): A number arrangement machine when given an input line of numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

**Input: 734269 825497 647538 219354
961357 321658**

Step I: 962437 794528 835746 453912
753169 856123

Step II: 453912 753169 794528 835746
856123 962437

Step III: 135924 135796 579248 357468
135268 379246

Step IV: 3458 33554 351832 152848 31048
211824

Step V: 20 20 22 28 16 18

Step V is the last step of the above arrangement as the intended arrangement is obtained.

As per the rules followed in the given steps find out the appropriate steps for the given input:

**Input: 856347 745982 329584 512379
954267 463512**

18. What is the difference between the 3rd number from left in step II and 2nd number from right in step IV? (1 Mark)

(A) 391834 (B) 391826
(C) 134099 (D) 134091
(E) None of these

19. Which of the following number is 3rd from right in step V? (1 Mark)

(A) 10 (B) 20
(C) 22 (D) 23

- (E) None of these
20. What will come when the number which is 2nd from right in step IV is divided by the number which is 2nd from left in final step?

- (A) 14912 (B) 15992
(C) 13592 (D) 12952
(E) None of these