



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai

Accredited by NAAC-UGC with 'A++' Grade (Cycle III) &

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COIMBATORE-641 035, TAMIL NADU



Here the words are arranged as the word having highest number of letters is arranged on the extreme left in the Step I after that the word having second highest number of letters is arranged the right of the word arranged in step I.

If the sum of the digits of two numbers is same then number which highest will be arranged first.

Word Number of

Letters

every 5

create 6

leader 6

history 7

imagined 8

As the number of letters in both 'create' and 'leader' are same, then the word which comes first according to dictionary i.e. 'create' will be arranged first.

Word Arrangement

Step

every Step I

create Step II

leader Step III

history Step IV

imagined Step V

As the arrangement of the words follows the right to right pattern therefore the number of steps required to complete the arrangement will not be not be less than the number of words in the given input.

Now, the given input:

Input: 79 create history 88 imagined 94 every 63 leader 96

Numbers

Number Digit Sum Arrangement

Step

39 12 Step I

74 11 Step II

46 10 Step III

53 8 Step IV

42 6 Step V

Words

Word Number of

Letters

Arrangement

Step

never 5 Step I

leaved 6 Step II

object 6 Step III

anyplace 8 Step IV

important 9 Step V

As the number of letters in both 'leaved' and 'object' are same, then the word which comes first according to dictionary i.e. 'leaved' will be arranged first.



Arrangement:

Input: never 42 leaved 39 important object 53 46 anyplace 74

Step I: 39 42 leaved important object 53 46 anyplace 74 never

Step II: 39 74 42 important object 53 46 anyplace never leaved

Step III: 39 74 46 42 important 53 anyplace never leaved object

Step IV: 39 74 46 53 42 important never leaved object anyplace

Step V: 39 74 46 53 42 never leaved object anyplace important

Step V is the last step of the arrangement.

Answer:

20. Following the final solution we can say that five steps will be required to complete the given input.

Hence, the correct answer is option D.

21. Following the final solution we can say that '39 74 46 53 42 important never leaved object any place' will be the last but one.

Hence, the correct answer is option B.

22. Following the final solution we can say that '53' will be on the right of 'Important' in step III.

Hence, the correct answer is option E.

23. Following the final solution we can say that there are five elements between '74' and 'leaved' in Step IV.

Hence, the correct answer is option D.

24. Following the final solution we can say that position of 'Object' will be third from right end in step V.

Hence, the correct answer is option A.

Common Explanation for (25-29):

Change in Number: Change in numbers take place as per the ascending order of the sum of the digits of each number. The number whose sum of digits is smallest is placed at extreme left end followed by the number whose sum of digits is second smallest and so on. **Change in Word:** Change in words take place in descending order of number of consonants in each word. The word with the highest number of consonants is placed at left end (immediately after the number) followed by the word with the second highest number of consonants and so on.

Note: Changes in word and number take place in alternate steps starting with number first. If in a step, a number is already at the desired place then for that particular step operation will be performed on word and vice-versa.

The given pattern:

Input: faster 24 and 37 rapid 61 progressive 18 requirement 85 building 93

Step I: 24 faster and 37 rapid 61 progressive 18 requirement 85 building 93



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Step II: 24 progressive faster and 37 rapid 61 18 requirement 85 building 93
 Step III: 24 progressive 61 faster and 37 rapid 18 requirement 85 building 93
 Step IV: 24 progressive 61 requirement faster and 37 rapid 18 85 building 93
 Step V: 24 progressive 61 requirement 18 faster and 37 rapid 85 building 93
 Step VI: 24 progressive 61 requirement 18 building faster and 37 rapid 85 93
 Step VII: 24 progressive 61 requirement 18 building 37 faster and rapid 85 93
 Step VIII: 24 progressive 61 requirement 18 building 37 faster 93 and rapid 85
 Step IX: 24 progressive 61 requirement 18 building 37 faster 93 rapid and 85
 Step X: 24 progressive 61 requirement 18 building 37 faster 93 rapid 85 and
 Table showing change in the given pattern:

Change in Word Change in Number

Word No. of

consonants

Order of

Preference Number Sum of digits Order of

Preference

faster 4 4th 24 6 1st

and 2 6th 37 10 4th

rapid 3 5th 61 7 2nd

progressive 7 1st 18 9 3rd

requirement 6 2nd 85 13 6th

building 5 3rd 93 12 5th

Output for the asked input:

Input: technology 47 transfer 26 rate 72 achieving 51 extra 91 version 32

Step I: 32 technology 47 transfer 26 rate 72 achieving 51 extra 91 version

Step II: 32 technology 51 47 transfer 26 rate 72 achieving extra 91 version

Step III: 32 technology 51 transfer 47 26 rate 72 achieving extra 91 version

Step IV: 32 technology 51 transfer 26 47 rate 72 achieving extra 91 version

Step V: 32 technology 51 transfer 26 achieving 47 rate 72 extra 91 version

Step VI: 32 technology 51 transfer 26 achieving 72 47 rate extra 91 version

Step VII: 32 technology 51 transfer 26 achieving 72 version 47 rate extra 91

Step VIII: 32 technology 51 transfer 26 achieving 72 version 91 47 rate extra

Step IX: 32 technology 51 transfer 26 achieving 72 version 91 extra 47 rate

Table showing change in the asked input:

Change in Word Change in Number

Word No. of

consonants

Order of

Preference Number Sum of digits Order of

Preference

technology 7 1st 47 11 6th

transfer 6 2nd 26 8 3rd

rate 2 6th 72 9 4th

achieving 5 3rd 51 6 2nd

extra 3 5th 91 10 5th



version 4 4th 32 5 1st

Answer:

25. From the following output it is clear that 9 steps are needed to reach the final output.

Hence option B is correct.

26. From the following output it is clear that 'transfer' is fourth to the left of 47 in step VI.

Step VI: 32 technology 51 transfer 26 achieving 72 47 rate extra 91 version

Hence option C is correct.

27. From the following output it is clear that "version 91 47 rate" is seen in the same sequence in step VIII.

Step VIII: 32 technology 51 transfer 26 achieving 72 version 91 47 rate extra

Hence option B is correct.

28. From the following output it is clear that 'rate' is exactly between 51 and 91 in step III.

Step III: 32 technology 51 transfer 47 26 rate 72 achieving extra 91 version

Hence option A is correct.

29. From the following output it is clear that 'achieving' is seventh from right end in final output.

Step IX: 32 technology 51 transfer 26 achieving 72 version 91 extra 47 rate

Hence option B is correct.

Common Explanation for (30-34):

Change in Word: Change in words takes place as per the dictionary order and placed at the right end just before the number.

Change in Number: Change in numbers takes place as per the ascending order.

Thereafter numbers are changed to a new number which is obtained by application of the following rules and then shifted to the extreme right end.

Rule I: If the number is even, then place '2' at the end of the number.

Rule II: If the number is odd, then place '3' at the beginning of the number.

Note: Changes in word and number take place simultaneously in each step.

The given pattern:

Input: name 72 nest 24 near 35 nostalgic 43 narrow 67

Step1: 72 nest near 35 nostalgic 43 narrow 67 name 242

Step2: 72 nest near nostalgic 43 67 name 242 narrow 335

Step3: 72 nest nostalgic 67 name 242 narrow 335 near 343

Step4: 72 nostalgic name 242 narrow 335 near 343 nest 367

Step5: name 242 narrow 335 near 343 nest 367 nostalgic 722

Solution to the given input:

Input: team 55 taboo 48 tackle 83 tissue 69 test 11

Step1: team 55 48 tackle 83 tissue 69 test taboo 311



Step2: team 55 83 tissue 69 test taboo 311 tackle 482
 Step3: 83 tissue 69 test taboo 311 tackle 482 team 355
 Step4: 83 tissue taboo 311 tackle 482 team 355 test 369
 Step5: taboo 311 tackle 482 team 355 test 369 tissue 383

Answer:

30. From the following output it is clear that 'taboo' is third from left in "Input" as well as in "step 4."

Hence option E is correct.

31. From the following output it is clear that "taboo 311 tackle 482 team 355 test 369 tissue 383" is the final output.

Step 5: taboo 311 tackle 482 team 355 test 369 tissue 383

Hence option B is correct.

32. From the following output it is clear that the difference between the highest and the lowest numbers of step 3 is 413.

Step3: 83 tissue 69 test taboo 311 tackle 482 team 355

Hence option D is correct.

33. From the following output it is clear that '69' is second to the left of fourth element from right end instep 2.

Step2: team 55 83 tissue 69 test taboo 311 tackle 482

Hence option C is correct.

34. From the following output it is clear that '83 tissue taboo' is seen in the same sequence in step 4.

Hence option A is correct.

Common Explanation for (35-39):

Each step is obtained by applying an operation different from the previous step.

Reference:

Input: spread joy laughter by sharing smile with masses

Step1: 9 2 11 5 6 4 7 9

Inference:

Here the operation performed is : Addition.

Here, the conversion of letters to numbers is done by performing addition of certain numbers to the number of letters of each word. The numbers are to be written in the same order in which their respective words are written in the input. If the number of letters are even then add 3 to the number of letters, if the number of letters are odd then less 1 from the number of letters.

Following the same logic, we can easily find the values of step 1.

For 'good' number of letters are 4 so its respective number becomes $4 + 3 = 7$.

For 'being', number of letters are 5 so its respective number becomes $5 - 1 = 4$.

Input: being good to everyone sometimes invite sad trouble

Step1: 4 7 5 11 8 9 2 6

Reference:



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Step1: 9 2 11 5 6 4 7 9

Step2: 99 10 42 36

Inference:

Here the mathematical operation performed is : Multiplication.

To obtain the first value of step 2, product of first and third numbers (from left end) is taken.

To get the second value of step 2, product of second and fourth numbers is taken.

To acquire the third value of step 2, product of fifth and seventh numbers is taken.

To identify the fourth value of step 2, product of sixth and eighth numbers is taken.

Following the same logic, we can easily find the values of step 2.

Step1: 4 7 5 11 8 9 2 6

Step2: 20 77 16 54

Reference:

Step2: 99 10 42 36

Step3: 57 26

Inference:

Here the operation performed is : Subtraction.

First value of step 3 is obtained by taking the difference of first and third numbers from left end.

Second value of step 3 is obtained by taking the difference of second and fourth numbers from left end.

Following the same logic, we can easily find the values of step 3.

Step2: 20 77 16 54

Step3: 4 23

Reference:

Step3: 57 26

Step4: 5

Inference:

Here the operation performed is : Average.

Average of all the digits of step 3 is taken to obtain the value of step 4.

Following the same logic, the value of step 4 is $(4+2+3)/3 = 3$

Step3: 4 23

Step4: 3

Final Output:

Input: being good to everyone sometimes invite sad trouble

Step1: 4 7 5 11 8 9 2 6

Step2: 20 77 16 54

Step3: 4 23

Step4: 3

Answer:

35. From the following explanation it is clear that if 3 is added to one of the digits of step 3, the final output will become 4 i.e. will be increased by 1.

Hence, option E is the correct answer.

36. From the following explanation it is clear that sum of the numbers of step 3 is 27 $(23+4)$, square of which is 729.



Hence, option A is the correct answer.

37. From the following explanation it is clear that if 'sad' is replaced by "so" then second last value(From left end) of step 1 will become 5 and second last value(From left end) of step 2 will become 40 by replacing 16.

Hence, option B is the correct answer.

38. From the following explanation it is clear that '3' is the only number that belongs to one of the steps of the given output, whereas all other numbers are not from the given steps of output.

Hence, option D is the correct answer.

39. From the following explanation it is clear that the sum of even numbers in step 2 is 90 (20+16+54) and sum of odd numbers in step 3 is 23.

Required difference = $90 - 23 \Rightarrow 67$.

Hence, option C is the correct answer.

Common Explanation for (40-44):

Change in Number: Change in numbers take place as per the ascending order of the sum of the digits until a single digit is obtained. The numbers are placed at alternate extreme ends starting from the extreme left end.

Change in Word: Change in words take place as per the ascending order of the number of letters in each word. The words are placed at alternate extreme ends starting from the extreme right end.

Note: Changes in word and number take place simultaneously in each step.

The given pattern:

Input: Fable 76 Quibble 24 Terrible 54 Able 82 Gamble 65

Step1: 82 Fable 76 Quibble 24 Terrible 54 Gamble 65 Able

Step2: Fable 82 76 Quibble 24 Terrible 54 Gamble Able 65

Step3: 76 Fable 82 Quibble 24 Terrible 54 Able 65 Gamble

Step4: Quibble 76 Fable 82 Terrible 54 Able 65 Gamble 24

Step5: 54 Quibble 76 Fable 82 Able 65 Gamble 24 Terrible

Solution to the given input:

Input: Scientific 29 Majestic 34 Fantastic 58 Hectic 77 Genetic 84

Step1: 29 Scientific Majestic 34 Fantastic 58 77 Genetic 84 Hectic

Step2: Genetic 29 Scientific Majestic 34 Fantastic 58 77 Hectic 84

Step3: 58 Genetic 29 Scientific 34 Fantastic 77 Hectic 84 Majestic

Step4: Fantastic 58 Genetic 29 Scientific 34 Hectic 84 Majestic 77

Step5: 34 Fantastic 58 Genetic 29 Hectic 84 Majestic 77 Scientific

Answer:

40. From the following output it is clear that '58' is fifth from the right end in step 1.

Step1: 29 Scientific Majestic 34 Fantastic 58 77 Genetic 84 Hectic

Hence option D is correct.



41. From the following output it is clear that the greatest number of the arrangement is 84 and the smallest number is 29.

In the final output, there is only one element (Hectic) between them.

Step5: 34 Fantastic 58 Genetic 29 Hectic 84 Majestic 77 Scientific

Hence option E is correct.

42. From the following output it is clear that sum of the numbers that come between Scientific and Majestic in step4 is $34+84 = 118$.

Step4: Fantastic 58 Genetic 29 Scientific 34 Hectic 84 Majestic 77

Hence option A is correct.

43. From the following output it is clear that Fantastic is exactly between 'Scientific' and 'Hectic' in step 2.

Step2: Genetic 29 Scientific Majestic 34 Fantastic 58 77 Hectic 84

Hence option D is correct.

44. From the following output it is clear that 29 is second to the left of sixth element from right end in step 3.

Hence option B is correct.

Common Explanation for (45-49):

Reference:

Input: 88 25 68 56 58 83 94

Step I: 88 68 25 56 58 83 94

Step II: 88 68 94 25 56 58 83

Step III: 88 68 94 58 25 56 83

Step IV: 88 68 94 58 83 25 56

Step V: 88 68 94 58 83 56 25

Step V is the last step of the arrangement.

Inference:

Here, the numbers are arranged as the number whose sum of the digits is highest is arranged on the extreme left in the Step I after that the number whose sum of the digits is second highest is arranged the right of the number arranged in step I.

Number Digits Sum

88 16

68 14

94 13

58 13

83 11

56 11

25 7

As the digits sum of both '94' and '58' is same, then the highest number i.e. 94 will be arranged first.

Similarly, the digits sum of both '83' and '56' is same, then the highest number i.e. 83 will be arranged first.

Number Arrangement

Step



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88 Step I

68 Step II

94 Step III

58 Step IV

83 Step V

56 Step VI

25 Step VII

As the arrangement of the numbers follows the left to right pattern therefore it might be possible that some numbers are arranged automatically.