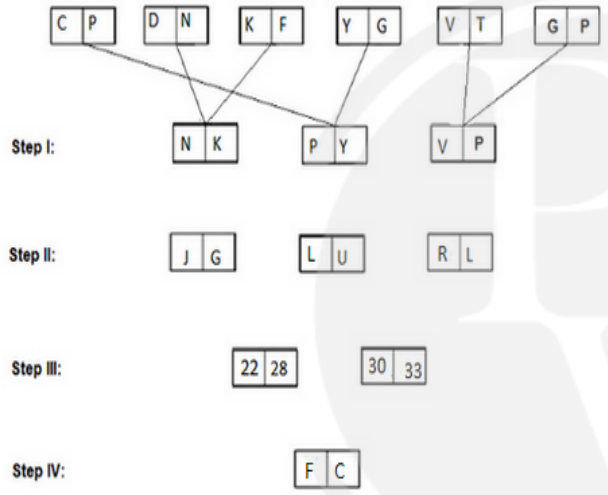
Reasoning

Input Output

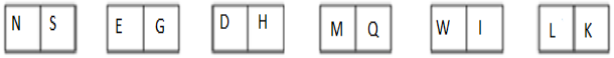
Level-3

Q1 Study the following information carefully and answer the questions accordingly.

An input-output is given in different steps. Some mathematical operations are done in each step. No mathematical operation is repeated in the next step.



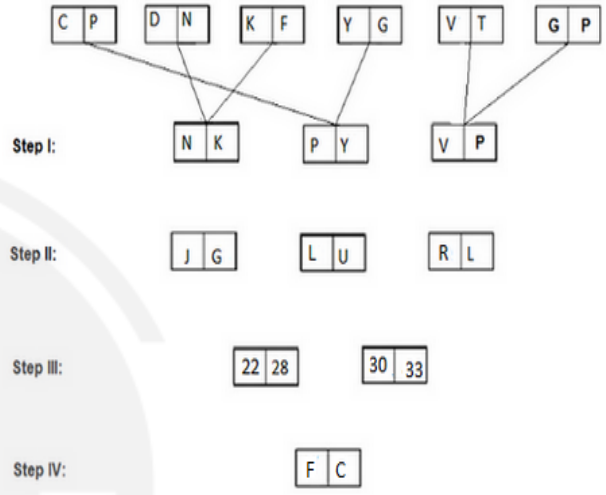
As per the rules followed in the steps given above, find out in each of the following questions the appropriate step for the given input.



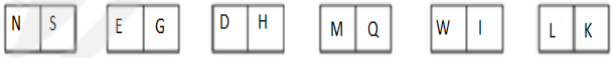
Which letter is in the 2nd part of the 3rd table of Step I of the given input?

(A) L (B) W
(C) H (D) Q
(E) None of these

Q2 An input-output is given in different steps. Some mathematical operations are done in each step. No mathematical operation is repeated in the next step.



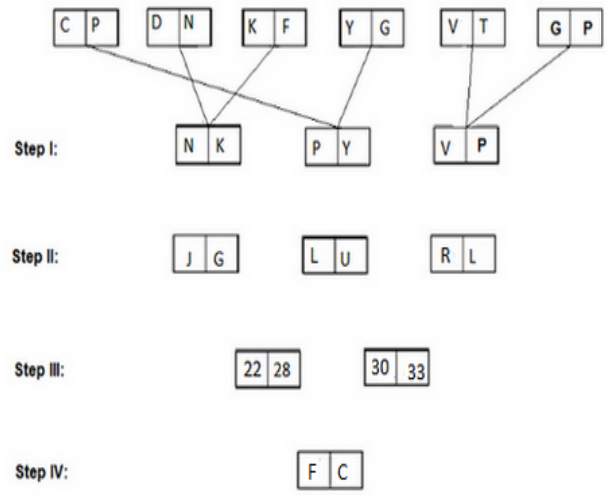
As per the rules followed in the steps given above, find out in each of the following questions the appropriate step for the given input.



Which among the following numbers are in the 2nd table in step III of the given input?

(A) 13, 15 (B) 18, 17
(C) 34, 21 (D) 21, 17
(E) None of these

Q3 An input-output is given in different steps. Some mathematical operations are done in each step. No mathematical operation is repeated in the next step.



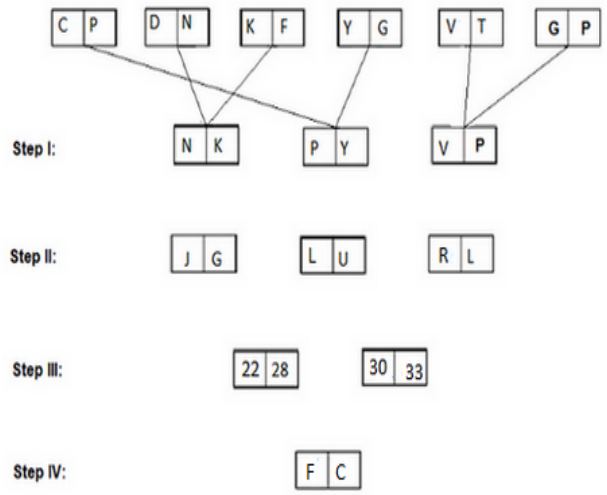
As per the rules followed in the steps given above, find out in each of the following questions the appropriate step for the given input.

N S E G D H M Q W I L K

If all the numbers of the second last step are added then what will be the answer?

(A) 85 (B) 78
(C) 90 (D) 65
(E) 70

Q4 An input-output is given in different steps. Some mathematical operations are done in each step. No mathematical operation is repeated in the next step.



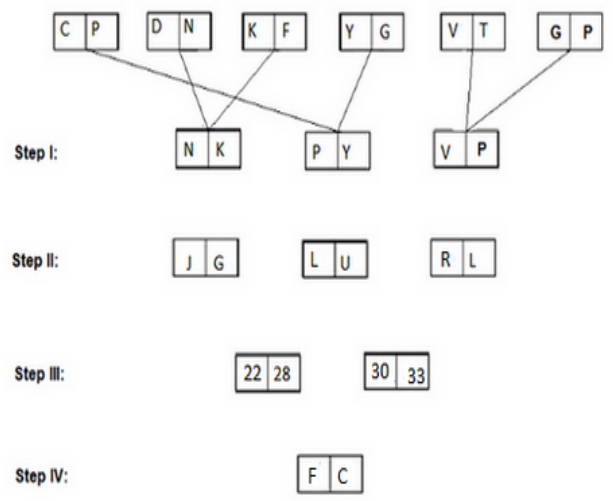
As per the rules followed in the steps given above, find out in each of the following questions the appropriate step for the given input.

N S E G D H M Q W I L K

What are the letters in the final table of the given input?

(A) A, M (B) G, H
(C) D, M (D) V, O
(E) None of these

Q5 An input-output is given in different steps. Some mathematical operations are done in each step. No mathematical operation is repeated in the next step.



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

What are the letters in the 2nd table in step II of the given input?

(A) S, H (B) O, M
(C) K, D (D) L, W
(E) None of these

Q6 Directions: 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: Vibrant 1331 Individualistic 625 Scratchy 196 Responsibilities 576 Organization 2116 Rainbow 841

Step I: Responsibilities Vibrant 1331 Individualistic 625 Scratchy 576 Organization 2116 Rainbow 841 691

Step II: Individualistic Responsibilities Vibrant 1331 625 Scratchy Organization 2116 Rainbow 841 691 675

Step III: Scratchy Individualistic Responsibilities Vibrant 1331 Organization 2116 Rainbow 841 691 675 625

Step IV: Organization Scratchy Individualistic Responsibilities Vibrant 1331 2116 Rainbow 691 675 625 841

Step V: Vibrant Organization Scratchy Individualistic Responsibilities 2116 Rainbow 691 675 625 841 1331

Step VI: Rainbow Vibrant Organization Scratchy Individualistic Responsibilities 691 675 625 841 1331 6112

Step VI is the last step

Find the different steps of output using the above mentioned logic for the following input.

Input: 1901 Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 Characteristics

How many element(s) will be there between `10031` and 'Internationalism' in Step III?

(A) Five (B) Six
(C) Seven (D) Eight
(E) Four

Q7 Directions: 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: Vibrant 1331 Individualistic 625 Scratchy 196 Responsibilities 576 Organization 2116 Rainbow 841

Step I: Responsibilities Vibrant 1331 Individualistic 625 Scratchy 576 Organization 2116 Rainbow 841 691

Step II: Individualistic Responsibilities Vibrant 1331 625 Scratchy Organization 2116 Rainbow 841 691 675

Step III: Scratchy Individualistic Responsibilities Vibrant 1331 Organization 2116 Rainbow 841 691 675 625

Step IV: Organization Scratchy Individualistic Responsibilities Vibrant 1331 2116 Rainbow 691 675 625 841

Step V: Vibrant Organization Scratchy Individualistic Responsibilities 2116 Rainbow 691 675 625 841 1331

Step VI: Rainbow Vibrant Organization Scratchy Individualistic Responsibilities 691 675 625 841 1331 6112

Step VI is the last step

Find the different steps of output using the above mentioned logic for the following input.

Input: 1901 Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 Characteristics

How many element(s) will be there between '4002' and '2122' in Step I?

(A) One (B) Two
(C) Three (D) Four
(E) None of these

Q8 Directions: 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: Vibrant 1331 Individualistic 625 Scratchy 196 Responsibilities 576 Organization 2116 Rainbow 841

Step I: Responsibilities Vibrant 1331 Individualistic 625 Scratchy 576 Organization 2116 Rainbow 841 691

Step II: Individualistic Responsibilities Vibrant 1331 625 Scratchy Organization 2116 Rainbow 841 691 675

Step III: Scratchy Individualistic Responsibilities Vibrant 1331 Organization 2116 Rainbow 841 691 675 625

Step IV: Organization Scratchy Individualistic Responsibilities Vibrant 1331 2116 Rainbow 691 675 625 841

Step V: Vibrant Organization Scratchy Individualistic Responsibilities 2116 Rainbow 691 675 625 841 1331

Step VI: Rainbow Vibrant Organization Scratchy Individualistic Responsibilities 691 675 625 841 1331 6112

Step VI is the last step

Find the different steps of output using the above mentioned logic for the following input.

Input: 1901 Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 Characteristics

How many steps are needed to reach the final output?

(A) Five (B) Six
(C) Seven (D) Eight
(E) Four

Q9 Directions: 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: Vibrant 1331 Individualistic 625 Scratchy 196 Responsibilities 576 Organization 2116 Rainbow 841

Step I: Responsibilities Vibrant 1331 Individualistic 625 Scratchy 576 Organization 2116 Rainbow 841 691

Step II: Individualistic Responsibilities Vibrant 1331 625 Scratchy Organization 2116 Rainbow 841 691 675

Step III: Scratchy Individualistic Responsibilities Vibrant 1331 Organization 2116 Rainbow 841 691 675 625
Step IV: Organization Scratchy Individualistic Responsibilities Vibrant 1331 2116 Rainbow 691 675 625 841
Step V: Vibrant Organization Scratchy Individualistic Responsibilities 2116 Rainbow 691 675 625 841 1331
Step VI: Rainbow Vibrant Organization Scratchy Individualistic Responsibilities 691 675 625 841 1331 6112
Step VI is the last step
Find the different steps of output using the above mentioned logic for the following input.
Input: 1901 Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 Characteristics
How many words are to the left of `4002` in Step II ?
(A) One
(B) Two
(C) Three
(D) More than three
(E) None of these

Q10 Directions: 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: Vibrant 1331 Individualistic 625 Scratchy 196 Responsibilities 576 Organization 2116 Rainbow 841
Step I: Responsibilities Vibrant 1331 Individualistic 625 Scratchy 576 Organization 2116 Rainbow 841 691
Step II: Individualistic Responsibilities Vibrant 1331 625 Scratchy Organization 2116 Rainbow 841 691 675
Step III: Scratchy Individualistic Responsibilities Vibrant 1331 Organization 2116 Rainbow 841 691 675 625
Step IV: Organization Scratchy Individualistic Responsibilities Vibrant 1331 2116 Rainbow 691 675 625 841
Step V: Vibrant Organization Scratchy Individualistic Responsibilities 2116 Rainbow 691 675 625 841 1331
Step VI: Rainbow Vibrant Organization Scratchy Individualistic Responsibilities 691 675 625 841 1331 6112
Step VI is the last step
Find the different steps of output using the above mentioned logic for the following input.
Input: 1901 Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 Characteristics
In which of the following steps "Characteristics Solution 10031 " is seen in the same sequence?
(A) Five (B) Six
(C) Four (D) Three
(E) None of these

Q11 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: 1556 Four 1665 Eight 1656 Ten 1565 Twelve 2566 Fifteen 2655 Sixty
Step I: 2566 Four 1665 Eight 1656 Ten 1565 Twelve 1556 Fifteen 2655 Sixty
Step II: 2566 Fifteen 1665 Eight 1656 Ten 1565 Twelve 1556 Four 2655 Sixty
Step III: 2566 Fifteen 2655 Eight 1656 Ten 1565 Twelve 1556 Four 1665 Sixty

Step IV: 2566 Fifteen 2655 Twelve 1656 Ten 1565 Eight 1556 Four 1665 Sixty
Step V: 2566 Fifteen 2655 Twelve 1665 Ten 1565 Eight 1556 Four 1656 Sixty
Step VI: 2566 Fifteen 2655 Twelve 1665 Eight 1565 Ten 1556 Four 1656 Sixty
Step VII: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Ten 1556 Four 1565 Sixty
Step VIII: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Sixty 1556 Four 1565 Ten
Step IX: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Sixty 1565 Four 1556 Ten
Step IX is the last step
Find the different steps of output using the above mentioned logic for the following input.

Input: 122 One 213 Four 313 Seven 402 Sixteen 412 Eighteen 501 Twenty
How many odd numbers are to the right of Four in step IV ?
(A) None (B) One
(C) Two (D) Three
(E) Four

Q12 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: 1556 Four 1665 Eight 1656 Ten 1565 Twelve 2566 Fifteen 2655 Sixty
Step I: 2566 Four 1665 Eight 1656 Ten 1565 Twelve 1556 Fifteen 2655 Sixty
Step II: 2566 Fifteen 1665 Eight 1656 Ten 1565 Twelve 1556 Four 2655 Sixty
Step III: 2566 Fifteen 2655 Eight 1656 Ten 1565 Twelve 1556 Four 1665 Sixty
Step IV: 2566 Fifteen 2655 Twelve 1656 Ten 1565 Eight 1556 Four 1665 Sixty
Step V: 2566 Fifteen 2655 Twelve 1665 Ten 1565 Eight 1556 Four 1656 Sixty
Step VI: 2566 Fifteen 2655 Twelve 1665 Eight 1565 Ten 1556 Four 1656 Sixty
Step VII: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Ten 1556 Four 1565 Sixty
Step VIII: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Sixty 1556 Four 1565 Ten
Step IX: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Sixty 1565 Four 1556 Ten
Step IX is the last step
Find the different steps of output using the above mentioned logic for the following input.

Input: 122 One 213 Four 313 Seven 402 Sixteen 412 Eighteen 501 Twenty
How many steps are needed to reach the final output?
(A) Seven (B) Eight
(C) Nine (D) Ten
(E) Four

Q13 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: 1556 Four 1665 Eight 1656 Ten 1565 Twelve 2566 Fifteen 2655 Sixty
Step I: 2566 Four 1665 Eight 1656 Ten 1565 Twelve 1556 Fifteen 2655 Sixty
Step II: 2566 Fifteen 1665 Eight 1656 Ten 1565 Twelve 1556 Four 2655 Sixty
Step III: 2566 Fifteen 2655 Eight 1656 Ten 1565 Twelve 1556 Four 1665 Sixty

Step IV: 2566 Fifteen 2655 Twelve 1656 Ten 1565 Eight 1556 Four 1665 Sixty
Step V: 2566 Fifteen 2655 Twelve 1665 Ten 1565 Eight 1556 Four 1656 Sixty
Step VI: 2566 Fifteen 2655 Twelve 1665 Eight 1565 Ten 1556 Four 1656 Sixty
Step VII: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Ten 1556 Four 1565 Sixty
Step VIII: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Sixty 1556 Four 1565 Ten
Step IX: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Sixty 1565 Four 1556 Ten
Step IX is the last step
Find the different steps of output using the above mentioned logic for the following input.

Input: 122 One 213 Four 313 Seven 402 Sixteen 412 Eighteen 501 Twenty

How many words are between 501 and 412 in Step VI ?

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

Q14 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: 1556 Four 1665 Eight 1656 Ten 1565 Twelve 2566 Fifteen 2655 Sixty

Step I: 2566 Four 1665 Eight 1656 Ten 1565 Twelve 1556 Fifteen 2655 Sixty
Step II: 2566 Fifteen 1665 Eight 1656 Ten 1565 Twelve 1556 Four 2655 Sixty
Step III: 2566 Fifteen 2655 Eight 1656 Ten 1565 Twelve 1556 Four 1665 Sixty
Step IV: 2566 Fifteen 2655 Twelve 1656 Ten 1565 Eight 1556 Four 1665 Sixty
Step V: 2566 Fifteen 2655 Twelve 1665 Ten 1565 Eight 1556 Four 1656 Sixty
Step VI: 2566 Fifteen 2655 Twelve 1665 Eight 1565 Ten 1556 Four 1656 Sixty
Step VII: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Ten 1556 Four 1565 Sixty
Step VIII: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Sixty 1556 Four 1565 Ten
Step IX: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Sixty 1565 Four 1556 Ten
Step IX is the last step
Find the different steps of output using the above mentioned logic for the following input.

Input: 122 One 213 Four 313 Seven 402 Sixteen 412 Eighteen 501 Twenty

In which of the following steps "501 Twenty 402 Four" is seen in the same sequence?

(A) Step IV (B) Step V
(C) Step VI (D) Step VII
(E) Step III

Q15 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: 1556 Four 1665 Eight 1656 Ten 1565 Twelve 2566 Fifteen 2655 Sixty

Step I: 2566 Four 1665 Eight 1656 Ten 1565 Twelve 1556 Fifteen 2655 Sixty
Step II: 2566 Fifteen 1665 Eight 1656 Ten 1565 Twelve 1556 Four 2655 Sixty
Step III: 2566 Fifteen 2655 Eight 1656 Ten 1565 Twelve 1556 Four 1665 Sixty

Step IV: 2566 Fifteen 2655 Twelve 1656 Ten 1565 Eight 1556 Four 1665 Sixty
Step V: 2566 Fifteen 2655 Twelve 1665 Ten 1565 Eight 1556 Four 1656 Sixty
Step VI: 2566 Fifteen 2655 Twelve 1665 Eight 1565 Ten 1556 Four 1656 Sixty
Step VII: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Ten 1556 Four 1565 Sixty
Step VIII: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Sixty 1556 Four 1565 Ten
Step IX: 2566 Fifteen 2655 Twelve 1665 Eight 1656 Sixty 1565 Four 1556 Ten
Step IX is the last step
Find the different steps of output using the above mentioned logic for the following input.

Input: 122 One 213 Four 313 Seven 402 Sixteen 412 Eighteen 501 Twenty
Which of the following is second from the left end in final output?
(A) 412 (B) Sixteen
(C) 122 (D) Eighteen
(E) 501

Q16 **Directions: Analyze the data given and answer accordingly.**
Input- 1245 1696 1324 1455 1072 1095 1395 1060
Step I- 253 429 336 295 273 223 283 270
Step II- 682 765 41 22 496 506 13
Step III- 16 18 5 4 19 11 4
Step IV- 8 9 2.5 2 9.5 5.5 2
Step IV is the last step.
Input: 6456 7465 7235 9856 8348 2748
If all the numbers in step III are arranged in ascending order from left to the right, then how many will remain unchanged?
(A) One (B) Five
(C) Three (D) Two
(E) None of these

Q17 **Directions: Analyze the data given and answer accordingly.**
Input- 1245 1696 1324 1455 1072 1095 1395 1060
Step I- 253 429 336 295 273 223 283 270
Step II- 682 765 41 22 496 506 13
Step III- 16 18 5 4 19 11 4
Step IV- 8 9 2.5 2 9.5 5.5 2
Step IV is the last step.
Input: 6456 7465 7235 9856 8348 2748
What is the result when the third element from the right and the second element from the left in step III are multiplied?
(A) 120 (B) 190
(C) 244 (D) 230
(E) None of these

Q18 **Directions: Analyze the data given and answer accordingly.**
Input- 1245 1696 1324 1455 1072 1095 1395 1060
Step I- 253 429 336 295 273 223 283 270
Step II- 682 765 41 22 496 506 13
Step III- 16 18 5 4 19 11 4
Step IV- 8 9 2.5 2 9.5 5.5 2
Step IV is the last step.
Input: 6456 7465 7235 9856 8348 2748
What is the sum of the second highest and the second lowest number in step II?
(A) 3930 (B) 2920
(C) 4924 (D) 3966
(E) None of these

Q19 **Directions: Analyze the data given and answer accordingly.**
Input- 1245 1696 1324 1455 1072 1095 1395 1060
Step I- 253 429 336 295 273 223 283 270
Step II- 682 765 41 22 496 506 13
Step III- 16 18 5 4 19 11 4
Step IV- 8 9 2.5 2 9.5 5.5 2
Step IV is the last step.
Input: 6456 7465 7235 9856 8348 2748

Which of the following elements is third to the right of the number, which is fifth from the right end in step IV?

(A) 5 (B) 8.5
(C) 10.5 (D) 5.5
(E) None of these

Q20 Directions: Analyze the data given and answer accordingly.

Input- 1245 1696 1324 1455 1072 1095 1395 1060
Step I- 253 429 336 295 273 223 283 270
Step II- 682 765 41 22 496 506 13
Step III- 16 18 5 4 19 11 4
Step IV- 8 9 2.5 2 9.5 5.5 2
Step IV is the last step.

Input: 6456 7465 7235 9856 8348 2748

Which of the following is the cube root of the number which is fifth from the left end in the last step?

(A) 1090.295 (B) 988.610
(C) 2295.450 (D) 1157.625
(E) None of these

Answer Key

Q1	(A)
Q2	(C)
Q3	(C)
Q4	(A)
Q5	(B)
Q6	(E)
Q7	(C)
Q8	(B)
Q9	(C)
Q10	(A)
Q11	(B)
Q12	(C)
Q13	(C)
Q14	(C)
Q15	(D)
Q16	(E)
Q17	(D)
Q18	(D)
Q19	(A)
Q20	(D)

Hints & Solutions

Q1 Text Solution:

Step I: The letter (among the two letters of 1st table) which has the highest alphabetical number in the alphabetical series is written in the 1st part of the 2nd table. And the letter (among the two letters of 4th table) which has the highest alphabetical number in the alphabetical series is written in the 2nd part of the 2nd table.

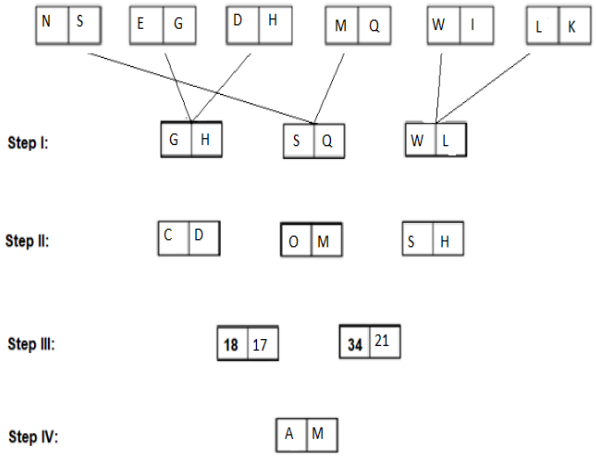
Similarly, the letter (among the two letters of 2nd table) which appears last in the alphabetical series, is written in the 1st part of the 1st table. And the letter (among the two letters of 3rd table) which appears last in the alphabetical series, is written in the 2nd part of the 1st table. Same is repeated for the remaining tables.

Step II: Write the immediately preceding 4th letters of all the letters in the corresponding parts of the tables.

Step III: Sum of the values of the letters of 1st part of 1st table and 1st part of 2nd table is written in 1st part of the 1st table. Again, sum of the values of the letters of the 2nd part of 1st and 2nd part of the 2nd table is written in the 2nd part of the 1st table. The same is repeated for the next table.

Step IV: The corresponding letter (in alphabetical series) representing the difference of the numbers of both the parts of the 1st table is written in the 1st part while the corresponding letter (in alphabetical series) representing the difference of the numbers of both the parts of the 2nd table is written in the 2nd part of the table.

The final arrangement will be:



According to the common solution, we can say that 'L' is in the 2nd part of the 3rd table of Step I of the given input.

Hence, the correct answer is option A.

Q2 Text Solution:

Step I: The letter (among the two letters of 1st table) which has the highest alphabetical number in the alphabetical series is written in the 1st part of the 2nd table. And the letter (among the two letters of 4th table) which has the highest alphabetical number in the alphabetical series is written in the 2nd part of the 2nd table.

Similarly, the letter (among the two letters of 2nd table) which appears last in the alphabetical series, is written in the 1st part of the 1st table. And the letter (among the two letters of 3rd table) which appears last in the alphabetical series, is written in the 2nd part of the 1st table. Same is repeated for the remaining tables.

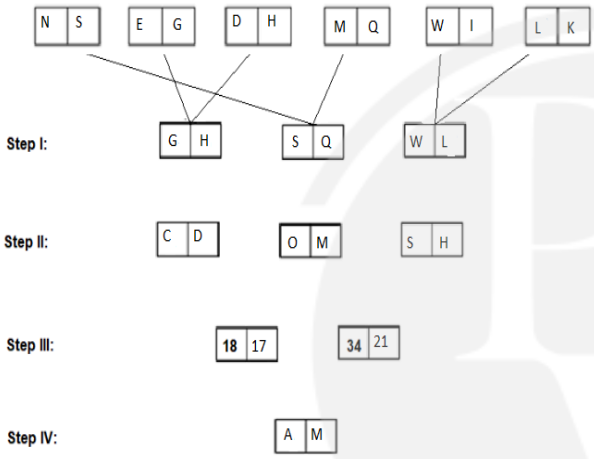
Step II: Write the immediately preceding 4th letters of all the letters in the corresponding parts of the tables.

Step III: Sum of the values of the letters of 1st part of 1st table and 1st part of 2nd table is written in 1st part of the 1st table. Again, sum of

the values of the letters of the 2nd part of 1st and 2nd part of the 2nd table is written in the 2nd part of the 1st table. The same is repeated for the next table.

Step IV: The corresponding letter (in alphabetical series) representing the difference of the numbers of both the parts of the 1st table is written in the 1st part while the corresponding letter (in alphabetical series) representing the difference of the numbers of both the parts of the 2nd table is written in the 2nd part of the table.

The final arrangement will be:



According to the common solution, we can say that 34, 21 are in the 2nd table in step III of the given input.

Hence, the correct answer is option C.

Q3 Text Solution:

Step I: The letter (among the two letters of 1st table) which has the highest alphabetical number in the alphabetical series is written in the 1st part of the 2nd table. And the letter (among the two letters of 4th table) which has the highest alphabetical number in the alphabetical series is written in the 2nd part of the 2nd table.

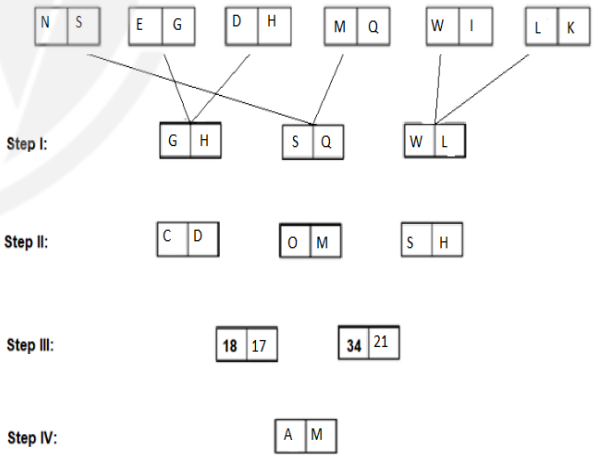
Similarly, the letter (among the two letters of 2nd table) which appears last in the alphabetical series, is written in the 1st part of the 1st table. And the letter (among the two letters of 3rd table) which appears last in the alphabetical series, is written in the 2nd part of the 1st table. Same is repeated for the remaining tables.

Step II: Write the immediately preceding 4th letters of all the letters in the corresponding parts of the tables.

Step III: Sum of the values of the letters of 1st part of 1st table and 1st part of 2nd table is written in 1st part of the 1st table. Again, sum of the values of the letters of the 2nd part of 1st and 2nd part of the 2nd table is written in the 2nd part of the 1st table. The same is repeated for the next table.

Step IV: The corresponding letter (in alphabetical series) representing the difference of the numbers of both the parts of the 1st table is written in the 1st part while the corresponding letter (in alphabetical series) representing the difference of the numbers of both the parts of the 2nd table is written in the 2nd part of the table.

The final arrangement will be:



According to the common solution,

If all the numbers of the second last step are added.

18 + 17 + 34 + 21= 90

Hence, the correct answer is option C.

Q4 Text Solution:

Step I: The letter (among the two letters of 1st table) which has the highest alphabetical number in the alphabetical series is written in the 1st part of the 2nd table. And the letter (among the two letters of 4th table) which has the highest alphabetical number in the alphabetical series is written in the 2nd part of the 2nd table.

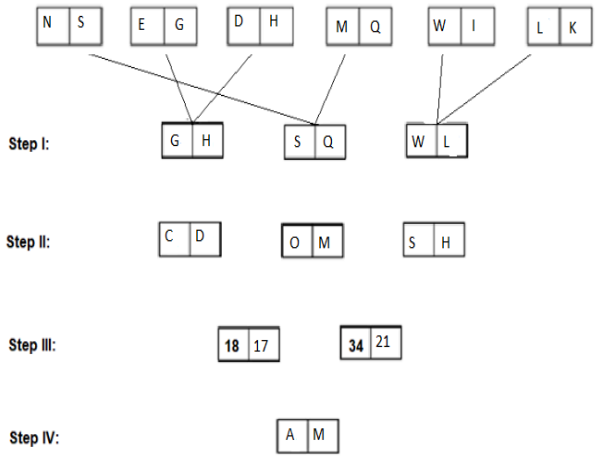
Similarly, the letter (among the two letters of 2nd table) which appears last in the alphabetical series, is written in the 1st part of the 1st table. And the letter (among the two letters of 3rd table) which appears last in the alphabetical series, is written in the 2nd part of the 1st table. Same is repeated for the remaining tables.

Step II: Write the immediately preceding 4th letters of all the letters in the corresponding parts of the tables.

Step III: Sum of the values of the letters of 1st part of 1st table and 1st part of 2nd table is written in 1st part of the 1st table. Again, sum of the values of the letters of the 2nd part of 1st and 2nd part of the 2nd table is written in the 2nd part of the 1st table. The same is repeated for the next table.

Step IV: The corresponding letter (in alphabetical series) representing the difference of the numbers of both the parts of the 1st table is written in the 1st part while the corresponding letter (in alphabetical series) representing the difference of the numbers of both the parts of the 2nd table is written in the 2nd part of the table.

The final arrangement will be:



According to the common solution, we can say that A, M in the final table of the given input.

Hence, the correct answer is option A.

Q5 Text Solution:

Step I: The letter (among the two letters of 1st table) which has the highest alphabetical number in the alphabetical series is written in the 1st part of the 2nd table. And the letter (among the two letters of 4th table) which has the highest alphabetical number in the alphabetical series is written in the 2nd part of the 2nd table.

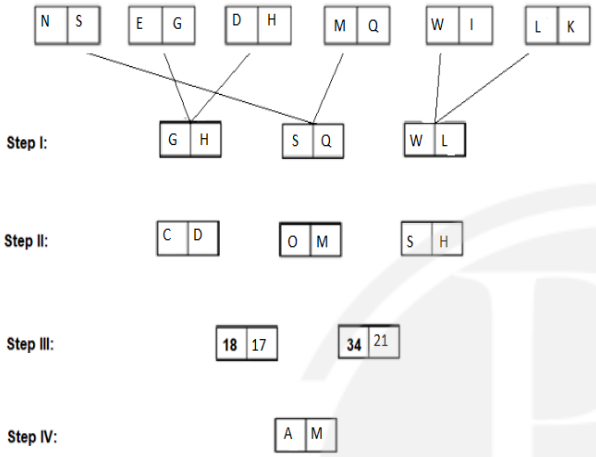
Similarly, the letter (among the two letters of 2nd table) which appears last in the alphabetical series, is written in the 1st part of the 1st table. And the letter (among the two letters of 3rd table) which appears last in the alphabetical series, is written in the 2nd part of the 1st table. Same is repeated for the remaining tables.

Step II: Write the immediately preceding 4th letters of all the letters in the corresponding parts of the tables.

Step III: Sum of the values of the letters of 1st part of 1st table and 1st part of 2nd table is written in 1st part of the 1st table. Again, sum of the values of the letters of the 2nd part of 1st and 2nd part of the 2nd table is written in the 2nd part of the 1st table. The same is repeated for the next table.

Step IV: The corresponding letter (in alphabetical series) representing the difference of the numbers of both the parts of the 1st table is written in the 1st part while the corresponding letter (in alphabetical series) representing the difference of the numbers of both the parts of the 2nd table is written in the 2nd part of the table.

The final arrangement will be:



According to the common solution, we can say that the letters in the 2nd table in step II of the given input are O, M.

Hence, the correct answer is option B.

Q6 Text Solution:

Changes in word and number take place in the same step. The word is placed at the left end and numbers at right end based on below conditions. If in a step, a number is already at the desired place then for that particular step operation will be performed on the next number and vice-versa.

Change in Word:

Changes in words take place as per the **descending order of the number of consonants in the word.** The word which would have the highest number of consonants is **placed at the extreme left** end followed by the word which will have the second highest consonants which is **placed to its left** and so on.

Change in Number:

Change in numbers take place as per the **ascending order of the value** of each number. The number which is smallest is **placed at the extreme right end** followed by the next bigger number which is **placed to its right** and so on. If the number is an even number then the reverse of that number is placed.

Input: 1901 Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 Characteristics

Step I: **Characteristics** Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 **1901**

Step II: **Internationalism Characteristics** Solution 4002 Physics 10031 2122 Interesting 4042 Strengths **1901 2007**

Step III: **Strengths Internationalism Characteristics** Solution 4002 Physics 10031 Interesting 4042 **1901 2007 2212**

Step IV: **Interesting Strengths Internationalism Characteristics** Solution Physics 10031 4042 **1901 2007 2212 2004**

Step V: **Physics Interesting Strengths Internationalism Characteristics** Solution 10031 **1901 2007 2212 2004 2404**

Step VI:**Solution Physics Interesting Strengths Internationalism Characteristics 1901 2007 2212 2004 2404 10031**

Q7 Text Solution:

Changes in word and number take place in the same step. The word is placed at the left end and numbers at right end based on below conditions. If in a step, a number is already at the desired place then for that particular step operation will be performed on the next number and vice-versa.

Change in Word:

Changes in words take place as per the **descending order of the number of consonants in the word.** The word which would have the highest number of consonants is **placed at the extreme left** end followed by the word which will have the second highest consonants which is **placed to its left** and so on.

Change in Number:

Change in numbers take place as per the **ascending order of the value** of each number. The number which is smallest is **placed at the extreme right end** followed by the next bigger number which is **placed to its right** and so on. If the number is an even number then the reverse of that number is placed.

Input: 1901 Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 Characteristics

Step I: **Characteristics** Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 **1901**

Step II: **Internationalism Characteristics** Solution 4002 Physics 10031 2122 Interesting 4042 Strengths **1901 2007**

Step III: **Strengths Internationalism Characteristics** Solution 4002 Physics 10031 Interesting 4042 **1901 2007 2212**

Step IV: **Interesting Strengths Internationalism Characteristics** Solution Physics 10031 4042 **1901 2007 2212 2004**

Step V: **Physics Interesting Strengths Internationalism Characteristics** Solution 10031 **1901 2007 2212 2004 2404**

Step VI:**Solution Physics Interesting Strengths Internationalism Characteristics 1901 2007 2212 2004 2404 10031**

Q8 Text Solution:

Changes in word and number take place in the same step. The word is placed at the left end and numbers at right end based on below conditions. If in a step, a number is already at the desired place then for that particular step operation will be performed on the next number and vice-versa.

Change in Word:

Changes in words take place as per the descending order of the number of consonants in the word. The word which would have the highest number of consonants is placed at the extreme left end followed by the word which will have the second highest consonants which is placed to its left and so on.

Change in Number:

Change in numbers take place as per the ascending order of the value of each number. The number which is smallest is placed at the extreme right end followed by the next bigger number which is placed to its right and so on. If the number is an even number then the reverse of that number is placed.

Input: 1901 Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 Characteristics

Step I: Characteristics Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 1901

Step II: Internationalism Characteristics Solution 4002 Physics 10031 2122 Interesting 4042 Strengths 1901 2007

Step III: Strengths Internationalism Characteristics Solution 4002 Physics 10031 Interesting 4042 1901 2007 2212

Step IV: Interesting Strengths Internationalism Characteristics Solution Physics 10031 4042 1901 2007 2212 2004

Step V: Physics Interesting Strengths Internationalism Characteristics Solution 10031 1901 2007 2212 2004 2404

Step VI:Solution Physics Interesting Strengths Internationalism Characteristics 1901 2007 2212 2004 2404 10031

- **"Six" steps are needed to reach the final output.**

Hence, "Six" is the correct answer.

Q9 Text Solution:

Changes in word and number take place in the same step**.** The word is placed at the left end and numbers at right end based on below conditions. If in a step, a number is already at the desired place then for that particular step operation will be performed on the next number and vice-versa.

Change in Word:

Changes in words take place as per the **descending order of the number of consonants in the word.** The word which would have the highest number of consonants is **placed at the extreme left** end followed by the word which will have the second highest consonants which is **placed to its left** and so on.

Change in Number:

Change in numbers take place as per the **ascending order of the value** of each number. The number which is smallest is **placed at the extreme right end** followed by the next bigger number which is **placed to its right** and so on. If the number is an even number then the reverse of that number is placed.

Input: 1901 Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 Characteristics

Step I: **Characteristics** Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 **1901**

Step II: **Internationalism Characteristics** Solution 4002 Physics 10031 2122 Interesting 4042 Strengths **1901 2007**

Step III: **Strengths Internationalism Characteristics** Solution 4002 Physics 10031 Interesting 4042 **1901 2007 2212**

Step IV: **Interesting Strengths Internationalism Characteristics** Solution Physics 10031 4042 **1901 2007 2212 2004**

Step V: **Physics Interesting Strengths Internationalism Characteristics** Solution 10031 **1901 2007 2212 2004 2404**

Step VI:**Solution Physics Interesting Strengths Internationalism Characteristics 1901 2007 2212 2004 2404 10031**

Q10 Text Solution:

Changes in word and number take place in the same step**.** The word is placed at the left end and numbers at right end based on below conditions. If in a step, a number is already at the desired place then for that particular step operation will be performed on the next number and vice-versa.

Change in Word:

Changes in words take place as per the **descending order of the number of consonants in the word.** The word which would have the highest number of consonants is **placed at the extreme left** end followed by the word which will have the second highest consonants which is **placed to its left** and so on.

Change in Number:

Change in numbers take place as per the **ascending order of the value** of each number. The number which is smallest is **placed at the extreme right end** followed by the next bigger number which is **placed to its right** and so on. If the number is an even number then the reverse of that number is placed.

Input: 1901 Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 Characteristics

Step I: **Characteristics** Solution 4002 Physics 10031 Internationalism 2122 Interesting 4042 Strengths 2007 **1901**

Step II: **Internationalism Characteristics** Solution 4002 Physics 10031 2122 Interesting 4042 Strengths **1901 2007**

Step III: **Strengths Internationalism Characteristics** Solution 4002 Physics 10031 Interesting 4042 **1901 2007 2212**

Step IV: **Interesting Strengths Internationalism Characteristics** Solution Physics 10031 4042 **1901 2007 2212 2004**

Step V: **Physics Interesting Strengths Internationalism Characteristics** Solution 10031 **1901 2007 2212 2004 2404**

Step VI:**Solution Physics Interesting Strengths Internationalism Characteristics 1901 2007 2212 2004 2404 10031**

Q11 Text Solution:

Changes in word and number take place in alternate steps starting with **number first.** In each step a number or word is **swapped** with the number or word in its desired position. 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.

Arrangement of numbers:

Here the number whose **sum of the digits is highest** is arranged on the **extreme left** in Step I after that the number whose sum of the digits is second highest is **arranged to the right** of the number arranged in step I.

If the sum of digits is the same, then the highest number will be arranged first.

Arrangement of words:

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

If the number of letters are the same, then the word which comes first according to the dictionary will be arranged first.

Input: 122 One 213 Four 313 Seven 402 Sixteen 412 Eighteen 501 Twenty

Step I: **412** One 213 Four 313 Seven 402 Sixteen 122 Eighteen 501 Twenty

Step II: **412 Eighteen** 213 Four 313 Seven 402 Sixteen 122 One 501 Twenty

Step III: **412 Eighteen 313** Four 213 Seven 402 Sixteen 122 One 501 Twenty

Step IV: **412 Eighteen 313 Sixteen** 213 Seven 402 Four 122 One 501 Twenty

Step V: **412 Eighteen 313 Sixteen 501** Seven 402 Four 122 One 213 Twenty

Step VI: **412 Eighteen 313 Sixteen 501 Twenty** 402 Four 122 One 213 Seven

Step VII: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven** 122 One 213 Four

Step VIII: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven 213** One 122 Four

Step IX: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven 213 Four 122 One**

Q12 Text Solution:

Changes in word and number take place in alternate steps starting with **number first.** In each step a number or word is **swapped** with the number or word in its desired position. 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.

Arrangement of numbers:

Here the number whose **sum of the digits is highest** is arranged on the **extreme left** in Step I after that the number whose sum of the digits is

second highest is **arranged to the right** of the number arranged in step I.

If the sum of digits is the same, then the highest number will be arranged first.

Arrangement of words:

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

If the number of letters are the same, then the word which comes first according to the dictionary will be arranged first.

Input: 122 One 213 Four 313 Seven 402 Sixteen 412 Eighteen 501 Twenty

Step I: **412** One 213 Four 313 Seven 402 Sixteen 122 Eighteen 501 Twenty

Step II: **412 Eighteen** 213 Four 313 Seven 402 Sixteen 122 One 501 Twenty

Step III: **412 Eighteen 313** Four 213 Seven 402 Sixteen 122 One 501 Twenty

Step IV: **412 Eighteen 313 Sixteen** 213 Seven 402 Four 122 One 501 Twenty

Step V: **412 Eighteen 313 Sixteen 501** Seven 402 Four 122 One 213 Twenty

Step VI: **412 Eighteen 313 Sixteen 501 Twenty** 402 Four 122 One 213 Seven

Step VII: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven** 122 One 213 Four

Step VIII: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven 213** One 122 Four

Step IX: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven 213 Four 122 One**

Q13 Text Solution:

Changes in word and number take place in alternate steps starting with **number first.** In each step a number or word is **swapped** with the number or word in its desired position. 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.

Arrangement of numbers:

Here the number whose **sum of the digits is highest** is arranged on the **extreme left** in Step I after that the number whose sum of the digits is second highest is **arranged to the right** of the number arranged in step I.

If the sum of digits is the same, then the highest number will be arranged first.

Arrangement of words:

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

If the number of letters are the same, then the word which comes first according to the dictionary will be arranged first.

Input: 122 One 213 Four 313 Seven 402 Sixteen 412 Eighteen 501 Twenty

Step I: **412** One 213 Four 313 Seven 402 Sixteen 122 Eighteen 501 Twenty

Step II: **412 Eighteen** 213 Four 313 Seven 402 Sixteen 122 One 501 Twenty

Step III: **412 Eighteen 313** Four 213 Seven 402 Sixteen 122 One 501 Twenty

Step IV: **412 Eighteen 313 Sixteen** 213 Seven 402 Four 122 One 501 Twenty

Step V: **412 Eighteen 313 Sixteen 501** Seven 402 Four 122 One 213 Twenty

Step VI: **412 Eighteen 313 Sixteen 501 Twenty** 402 Four 122 One 213 Seven

Step VII: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven** 122 One 213 Four

Step VIII: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven 213** One 122 Four

Step IX: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven 213 Four 122 One**

Q14 Text Solution:

Changes in word and number take place in alternate steps starting with **number first.** In each step a number or word is **swapped** with the number or word in its desired position. 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.

Arrangement of numbers:

Here the number whose **sum of the digits is highest** is arranged on the **extreme left** in Step I after that the number whose sum of the digits is second highest is **arranged to the right** of the number arranged in step I.

If the sum of digits is the same, then the highest number will be arranged first.

Arrangement of words:

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

If the number of letters are the same, then the word which comes first according to the dictionary will be arranged first.

Input: 122 One 213 Four 313 Seven 402 Sixteen 412 Eighteen 501 Twenty

Step I: **412** One 213 Four 313 Seven 402 Sixteen 122 Eighteen 501 Twenty

Step II: **412 Eighteen** 213 Four 313 Seven 402 Sixteen 122 One 501 Twenty

Step III: **412 Eighteen 313** Four 213 Seven 402 Sixteen 122 One 501 Twenty

Step IV: **412 Eighteen 313 Sixteen** 213 Seven 402 Four 122 One 501 Twenty

Step V: **412 Eighteen 313 Sixteen 501** Seven 402 Four 122 One 213 Twenty

Step VI: **412 Eighteen 313 Sixteen 501 Twenty** 402 Four 122 One 213 Seven

Step VII: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven** 122 One 213 Four

Step VIII: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven 213** One 122 Four

Step IX: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven 213 Four 122 One**

Q15 Text Solution:

Changes in word and number take place in alternate steps starting with **number first.** In each step a number or word is **swapped** with the number or word in its desired position. 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.

Arrangement of numbers:

Here the number whose **sum of the digits is highest** is arranged on the **extreme left** in Step I after that the number whose sum of the digits is second highest is **arranged to the right** of the number arranged in step I.

If the sum of digits is the same, then the highest number will be arranged first.

Arrangement of words:

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

If the number of letters are the same, then the word which comes first according to the dictionary will be arranged first.

Input: 122 One 213 Four 313 Seven 402 Sixteen 412 Eighteen 501 Twenty

Step I: **412** One 213 Four 313 Seven 402 Sixteen 122 Eighteen 501 Twenty

Step II: **412 Eighteen** 213 Four 313 Seven 402 Sixteen 122 One 501 Twenty

Step III: **412 Eighteen 313** Four 213 Seven 402 Sixteen 122 One 501 Twenty

Step IV: **412 Eighteen 313 Sixteen** 213 Seven 402 Four 122 One 501 Twenty
Step V: **412 Eighteen 313 Sixteen 501** Seven 402 Four 122 One 213 Twenty
Step VI: **412 Eighteen 313 Sixteen 501 Twenty** 402 Four 122 One 213 Seven
Step VII: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven** 122 One 213 Four
Step VIII: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven 213** One 122 Four
Step IX: **412 Eighteen 313 Sixteen 501 Twenty 402 Seven 213 Four 122 One**

Q16 Text Solution:
Step 1: Even number is divided by 4 and then 5 is added. An odd number is divided by 5 and then 4 is added.
Step 2: +, + , -, -, +
Step 3: Sum all the digits in each number.
Step 4: Each number is divided by 2.
Input- 6456 7465 7235 9856 8348 2748
Step I- 1619 1497 1451 2469 2092 692
Step II- 3116 2948 1018 377 2784
Step III- 11 23 10 17 21
Step IV- 5.5 11.5 5 8.5 10.5

Q17 Text Solution:
Step 1: Even number is divided by 4 and then 5 is added. An odd number is divided by 5 and then 4 is added.
Step 2: +, + , -, -, +
Step 3: Sum all the digits in each number.
Step 4: Each number is divided by 2.
Input- 6456 7465 7235 9856 8348 2748
Step I- 1619 1497 1451 2469 2092 692
Step II- 3116 2948 1018 377 2784
Step III- 11 23 10 17 21
Step IV- 5.5 11.5 5 8.5 10.5

Q18 Text Solution:
Step 1: Even number is divided by 4 and then 5 is added. Odd number is divided by 5 and then 4 is added.
Step 2: +, + , -, -, +
Step 3: Sum of all the digits in each number.
Step 4: Each number is divided by 2.
Input- 6456 7465 7235 9856 8348 2748
Step I- 1619 1497 1451 2469 2092 692
Step II- 3116 2948 1018 377 2784
Step III- 11 23 10 17 21
Step IV- 5.5 11.5 5 8.5 10.5
Required sum = 2948 + 1018 = 3966

Q19 Text Solution:
Step 1: Even number is divided by 4 and then 5 is added. Odd number is divided by 5 and then 4 is added.
Step 2: +, + , -, -, +
Step 3: Sum of all the digits in each number.
Step 4: Each number is divided by 2.
Input- 6456 7465 7235 9856 8348 2748
Step I- 1619 1497 1451 2469 2092 692
Step II- 3116 2948 1018 377 2784
Step III- 11 23 10 17 21
Step IV- 5.5 11.5 5 8.5 10.5

Q20 Text Solution:
Step 1: Even number is divided by 4 and then 5 is added. Odd number is divided by 5 and then 4 is added.
Step 2: +, + , -, -, +
Step 3: Sum of all the digits in each number.
Step 4: Each number is divided by 2.
Input- 6456 7465 7235 9856 8348 2748
Step I- 1619 1497 1451 2469 2092 692
Step II- 3116 2948 1018 377 2784
Step III- 11 23 10 17 21
Step IV- 5.5 11.5 5 8.5 10.5
Required resultant = $(10.5)^3$ = 1157.625