

CH 3 INPUT AND OUTPUT

ANSWERS AND EXPLANATIONS

1-5: Here it is case of arrangement. The logic is: the words get arranged in alphabetical order. Whereas the numbers get arranged in descending order. Numbers occupy odd places in the final steps while words occupy even positions. When any element gets arranged the previous elements occupying that position shifts one place towards right.

1. (b) **Input:** 9 13 about tariff 24 call 29 even
Step I: 29 9 13 about tariff 24 call even
Step II: 29 about 9 13 tariff 24 call even
Step III: 29 about 24 9 13 tariff call even
Step IV: 29 about 24 call 9 13 tariff even
2. (c) **Step II:** 37 desk 34 garden 5 father victory 17
Step III: 37 desk 34 father garden 5 victory 17
Step IV: 37 desk 34 father 17 garden 5 victory
 Since all the elements of the input are fully arranged in Step IV, this is the last step of the given input.
3. (d) **Step I:** 59 bead tenure father 38 11 ultimate 24
Step II: 59 bead 38 tenure father 11 ultimate 24
Step III: 59 bead 38 father tenure I I ultimate 24
4. (d) Since it is a case of arrangement, we can't obtain previous steps with certainty.
5. (a) **Input:** 24 12 entry sand butter 51 32 carry
Step I: 51 24 12 entry sand butter 32 carry
Step II: 51 butter 24 12 entry sand 32 carry
Step III: 51 butter 32 24 12 entry sand carry

6-10: An intuitive look at the input and the steps makes it clear that it is a case of arrangement. The input is a combination of words and numbers. Words get arranged according to reverse order of alphabetical arrangement whereas numbers get arranged in ascending order.

In step I, 'over' occupies the first place from the left end and the other elements are pushed one place rightward.

Similarly, in step II, '26' occupies the second place from the left end and the other elements are pushed one place rightward.

Thus, alternate arranging of words and numbers finally gives the last step in which the odd places from the left are occupied by words and the even places are occupied by numbers.

6. (d) Since it is a case of arrangement, therefore previous steps or input can't be determined with certainty.
7. (b) **Step III:** take 17 mind game 29 73 18 loud
Step IV: take 17 mind 18 game 29 73 loud
Step V: take 17 mind 18 loud game 29 73
Step VI: take 17 mind 18 loud 29 game 73
 Hence, step VI is the last step. Therefore, three more steps are required to complete the sequence.
8. (d) **Input:** by now 51 32 for 91 20 me
Step I: now by 51 32 for 91 20 me
Step II: now 20 by 51 32 for 91 me
Step III: now 20 me by 51 32 for 91
Step IV: now 20 me 32 by 51 for 91
Step V: now 20 me 32 for by 51 91
Step VI: now 20 me 32 for 51 by 91
 Hence, step VI is the last step for the given input.
9. (b) **Input:** fight for all 39 62 25 today 19
Step I: today fight for all 39 62 25 19
Step II: today 19 fight for all 39 62 25
Step III: today 19 for fight all 39 62 25
Step IV: today 19 for 25 fight all 39 62
10. (e) **Input:** queen mary 79 62 17 20 green west
Step I: west queen mary 79 62 17 20 green



Step II: west 17 queen mary 79 62 20 green

Step III: west 17 queen 20 mary 79 62 green

Step IV: west 17 queen 20 mary 62 79 green

Step V: west 17 queen 20 mary 62 green 79

Hence, step V is the last step. Therefore, the penultimate step (last but one) is step IV.

11-14 : From the last step it can be concluded that words and numbers are arranged alternately. Words are arranged alphabetically whereas numbers are arranged in descending order. When the arrangement of all elements gets completed in a particular step that step is called last step.

11. (c) **Input:** machine hire for 19 against 85 21 46

Step I: against machine hire for 19 85 21 46

Step II: against 85 machine hire for 19 21 46

12. (c) **Input:** box at 20 53 62 gift now 32

Step I: at box 20 53 62 gift now 32

Step II: at 62 box 20 53 gift now 32

Step III: at 62 box 53 20 gift now 32

Step IV: at 62 box 53 gift 20 now 32

13. (c) **Input:** on at 33 27 42 sky mat 51

Step I: at on 33 27 42 sky mat 51

Step II: at 51 on 33 27 42 sky mat

Step III: at 51 mat on 33 27 42 sky

Step IV: at 51 mat 42 on 33 27 sky

Step V: at 51 mat 42 on 33 sky 27

14. (a) **Step III:** bring 63 desk 11 29 together fight 30

Step IV: bring 63 desk 30 11 29 together fight

Step V: bring 63 desk 30 fight 11 29 together

Step VI: bring 63 desk 30 fight 29 11 together

Step VII: bring 63 desk 30 fight 29 together II

Step VII is the last step. Hence, step VI is the secondlast step (penultimate step).

15. (d) Previous steps can't be determined.

16-20: In the given arrangement the first and the second places are occupied by words; the third and the fourth by numbers; the fifth and the sixth by words; and the seventh and the eighth by numbers.

Words occupy place in alphabetical order while

numbers occupy place in descending order.

Whenever a word or a number gets arranged other elements shift one place rightward.

16. (d) Since it is a case of 'Arrangement', previous steps can't be obtained with certainty.

17. (a) **I: Input:** bring home 42 73 15 goal 32 type

Step I: bring goal home 42 73 15 32 type

Step II: bring goal 73 home 42 15 32 type

Step III: bring goal 73 42 home 15 32 type

Step IV: bring goal 73 42 home type 15 32

Step V: bring goal 73 42 home type 32 15

Since all the elements of Input get arranged in Step V, it is the last step.

18. (e) **Input:** bench 47 63 advance 13 29 again between

Step I: advance bench 47 63 13 29 again between

Step II: advance again bench 47 63 13 29 between

Step III: advance again 63 bench 47 13 29 between

19. (c) **Step II:** desk eagle 12 28 41 69 foreign land

Step III: desk eagle 69 12 28 41 foreign land

Step IV: desk eagle 69 41 12 28 foreign land

Step V: desk eagle 69 41 foreign 12 28 land

Step VI: desk eagle 69 41 foreign land 12 28

Step VII: desk eagle 69 41 foreign land 28 12

20. (a) **Step III:** again dark 83 sour 19 21 prey 39

Step IV: again dark 83 39 sour 19 21 prey

Step V: again dark 83 39 prey sour 19 21

Step VI: again dark 83 39 prey sour 21 19

Since step VI is the last step (because all elements of step III get arranged in step VI), step V is the required step (penultimate step or last but one.)

(21-25) : From the last step it can be concluded that words and numbers are arranged alternately. Word with least number of letters shifts to the leftmost position followed by the least number among the given numbers. In case of two words with same number of letters, words are arranged as per their dictionary order. For getting arranged they are interchanged with the word/number whose place it occupies.



