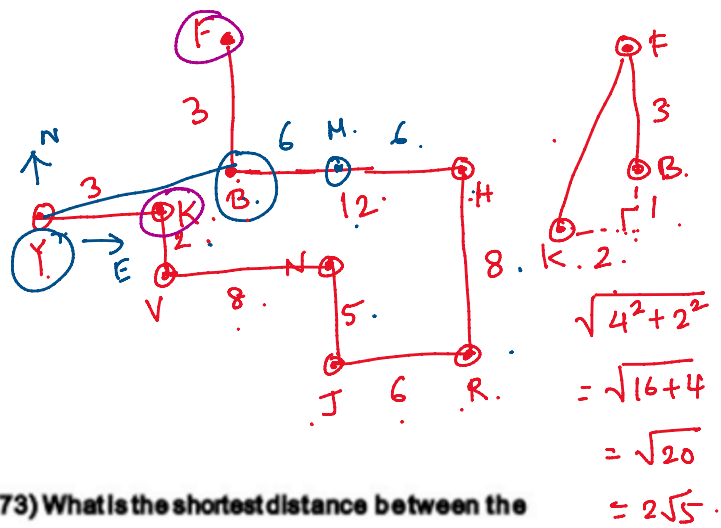


**Directions (71-73):** Study the following Information carefully and answer the questions given below.

A person from point F drives towards the south for 3km to reach point B, where he takes a left turn and drives for 12km to reach point H. Then he takes a right turn and drives for 8km to reach point R from where he turns to his right again and drives for 6km. He then drives for 5km after taking a right turn at point J and reaches point N. At this point he takes a left turn and drives for 8km to reach point V, where he takes a right turn and drives for 2km to reach point K. He finally stops at point Y, which is 3km to the west of point K.



73) What is the shortest distance between the points K and F?

- a)  $\sqrt{22}$ km
- b)  $2\sqrt{6}$ km
- c) 5km
- d)  $2\sqrt{5}$ km
- e) None of these

71) In which direction is point B with respect to point Y?

- a) East
- b) Southeast
- c) Northeast
- d) West
- e) None of these

74) If it is possible to make a meaningful word, using the third, fourth, sixth and eighth letters from the left end of the word 'RAVISHMENT', then what is the last letter of the word formed? If no such word is formed, mark the answer as 'Y'. If more than one word can be formed mark the answer as 'X'.

- a) D
- b) L
- c) X
- d) Y
- e) E

RAVISHMENT

Left →

V I H E

→ BEEHIVE

(HIVE)

→ NEST

→ HONEYCOMB

Right

75) How many such pairs of numbers are there in the number "81346528" each has many numbers between them as in the number series (both forward and backward)?

- a) 1

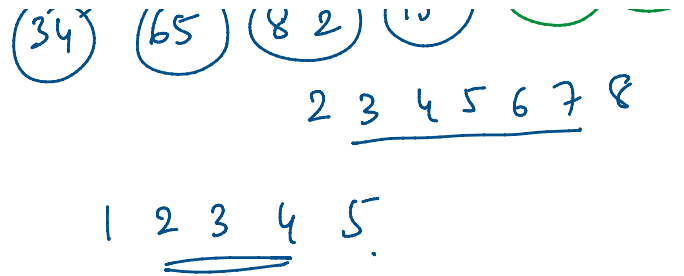
3 4 5 6 7 8

81 (34) 65 2 (8)

(34) (65) (82) (15) (38) (48)

0 0 4 5 6 7 8

- a) 1
- b) 2
- c) 3
- d) 4
- e) More than four



**Directions (76-80):** Study the following information carefully and answer the below questions

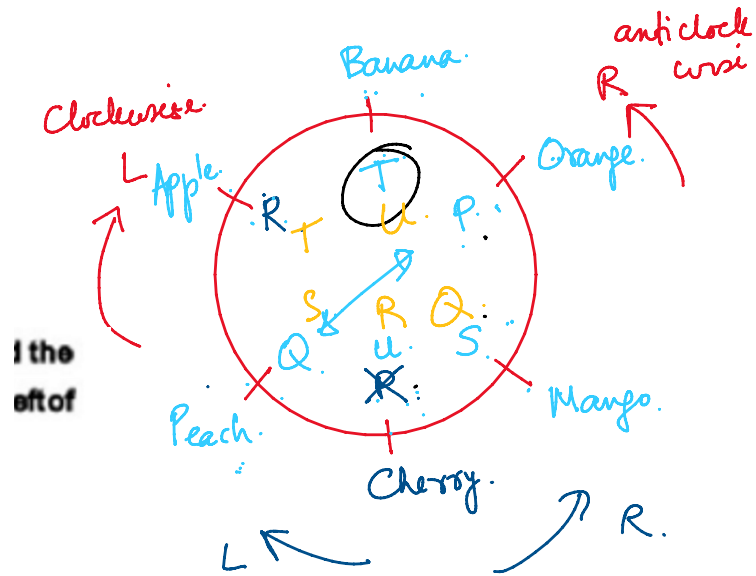
Six persons-P, Q, R, S, T, and U are sitting on the circular table and facing centre. They like different fruits- Banana, Mango, Apple, Peach, Cherry, and Orange. All the information is not necessarily in the same order.

77) Which of the following fruit is liked by U?

- a) Cherry
- b) Orange
- c) Banana
- d) Apple

80) If all the persons are arranged in alphabetical order in a clockwise direction from P, then who among the following person likes Apple (Fruits remain in same positions)?

- a) Q
- b) S
- c) The one who sits opposite to P
- d) T
- e) U



A 2 digit number is such that when the digits are reversed the number increases by 27. How many such numbers exist?

- a) one
- b) two
- c) three
- d) more than three
- e) None.

$$12 \rightarrow 21$$

$$10b + a - (10a + b) = 27$$

$$9b - 9a = 27$$

$$9(b - a) = 27$$

$$b - a = 3$$

$$12 = 1 \times 10 + 2$$

$$ab = a \times 10 + b = 10a + b$$

$$ba = b \times 10 + a = 10b + a$$

$$ba - ab = 27$$

a	b
1	4
2	5

27

14	41
25	52
36	63

$$b - a = 3$$

$$b = a + 3$$

1	1	25	52
2	5	36	63
3	6	47	74
4	7	58	85
5	8	69	96
6	9		

$$\begin{array}{r} 15 \checkmark \\ \times 15 \\ \hline 225 \end{array}$$

$$\begin{array}{r} a \overset{1}{b} \\ \times a \overset{2}{b} \\ \hline \underline{c \overset{1}{c} \overset{2}{b}} \end{array}$$

$$0 \times 0 = 0$$

$$1 \times 1 = 1$$

$$5 \times 5 = 25$$

$$6 \times 6 = 36$$

$$\begin{array}{r} 16 \\ \times 16 \\ \hline 256 \end{array}$$

$$\begin{array}{r} 26 \\ \times 26 \\ \hline 676 \end{array}$$

How many such numbers exist? 2

$$\begin{array}{r} 12 \\ \times 12 \\ \hline 144 \end{array}$$

$$\begin{array}{r} a \overset{1}{b} \\ \times a \overset{2}{b} \\ \hline \underline{a \overset{1}{c} \overset{2}{c}} \end{array}$$

$$\begin{array}{r} 21 \checkmark \\ \times 21 \\ \hline 441 \end{array}$$

$$\begin{array}{r} 10 \\ \times 10 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 20 \\ \times 20 \\ \hline 400 \end{array}$$

$$\begin{array}{r} 30 \\ \times 30 \\ \hline 900 \end{array}$$

$$\begin{array}{r} 31 \\ \times 31 \\ \hline 961 \end{array}$$