

Refer to the data below and answer the questions that follow.


The batch of 2019-21 of National Institute of Management Shillong (NIMS) has a total of 500 students. These students have been divided into four sections, named Section A, Section B, Section C and Section D.

Out of the students of the batch, 52% are freshers while the remaining 48% have work experience. The number of students in each section can be no less than 50 and no more than 175.

The following partially filled table shows the information about the break-up of the students in terms of freshers or with work experience in the four sections.

Section	Freshers	Work experience
A	55%	
B		45%
C	55%	
D	m%	n%

1) Which of the following cannot be the value of 'm'? —

- ☒ 30 
- ☐ 36.25
- ☐ 42.5
- ☐ 37.75

Video Explanation: ▼

Explanation: ▼

Correct Answer: ▼


Time taken by you: **523 secs**

Avg Time taken by all students: **139 secs**

Your Attempt: **Wrong**

% Students got it correct: **24 %**

2) What can be said about the relative values of 'm' and 'n'? —

- ☐  $m > n$
- ☐  $m < n$
- ☐  $m = n$
- ☒ No conclusion can be drawn because it will depend on the number of students in each section 

Video Explanation: ▼

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Section	Freshers	Work experience
A	55%	
B		45%
C	55%	
D	m%	n%

We have the following:

Section	Freshers	Work experience
A	55%	45%
B	55%	45%
C	55%	45%
D	m%	n%

Total number of freshers = 52% of 500 = 260 and the total number of students with work experience = 48% of 500 = 240.

It can be seen that the total percentage of freshers is 52%, while the percentage of freshers in the three sections A, B and C is 55%, which is higher than 52%. Similarly, the total percentage of students with work experience is 48%, while the percentage of the students with work experience in the three sections A, B and C is 45%, which is lower than 48%. Therefore, the value of 'm' has to be lower than 52%, while the value of 'n' has to be higher than 48%. From the explanatory answer to the previous question, we know that the value of 'm' can be 30% or 36.25% or 40% or 42.5% or 44.29% or 45.625%. It can be seen that the value of 'm' is less than 50%. Therefore, the value of 'n' is more than 50%. Therefore,  $m < n$ . Hence, [2].

Correct Answer:

Time taken by you: 100 secs

Avg Time taken by all students: 113 secs

Your Attempt: Wrong

% Students got it correct: 56 %

3) If there are 120 students in Section D, which of the following is closest to the ratio  $m : n$ ?

- ☐ 2 : 3
- ☒ 3 : 4
- ☐ 4 : 3
- ☐ 3 : 2

Video Explanation:

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A	55%	
B		45%
C	55%	
D	m%	n%

We have the following:

Section	Freshers	Work experience
A	55%	45%
B	55%	45%
C	55%	45%
D	m%	n%

Total number of freshers = 52% of 500 = 260 and the total number of students with work experience = 48% of 500 = 240.

From the explanatory answer to the first question of the set, if there are 120 students in section D, 51 students are freshers and the remaining 69 students are with work experience. Therefore, the required ratio of m : n is 51 : 69 or close to 3 : 4. Hence, [2].

Correct Answer:

▼

Time taken by you: **97 secs**

Avg Time taken by all students: **123 secs**

Your Attempt: **Correct**

% Students got it correct: **62 %**

4) If the ratio of the number of students in sections A, B and C is 4 : 6 : 7, what is the difference in the number of students in the sections B, C and D taken together who are freshers and who have work experience?

- ☐ 6
- ☐ 8
- ☐ 12
- ☐ Cannot be determined

Video Explanation:

▼

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B		45%
C	55%	
D	m%	n%

We have the following:

Section	Freshers	Work experience
A	55%	45%
B	55%	45%
C	55%	45%
D	m%	n%

Total number of freshers = 52% of 500 = 260 and the total number of students with work experience = 48% of 500 = 240.

As seen from the explanatory answer to the first question of the set, the number of students in each section is a multiple of 20. If the ratio of the number of students in sections A, B and C is 4 : 6 : 7, the total number of students in these three sections taken together is  $(4 + 6 + 7)20 = 340$  and the number of students in Section D =  $500 - 340 = 160$ . Also, the numbers of students in sections A, B and C are 80, 120 and 140 respectively. Using the inference drawn in the explanatory answer to the previous questions, we have the following:

Section	Students	Freshers	Work experience
B	120	55% of 120 = 66	120 – 66 = 54
C	140	55% of 140 = 77	140 – 77 = 63
D	160	73	160 – 73 = 87
Total	420	216	204

Therefore, the required difference =  $216 - 204 = 12$ . Hence, [3].

Correct Answer:

▼

Time taken by you: **10 secs**

Avg Time taken by all students: **93 secs**

Your Attempt: **Skipped**

% Students got it correct: **38 %**

**Refer to the data below and answer the questions that follow.**

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The following partially filled table shows the information about the break-up of the students in terms of freshers or with work experience in the four sections.

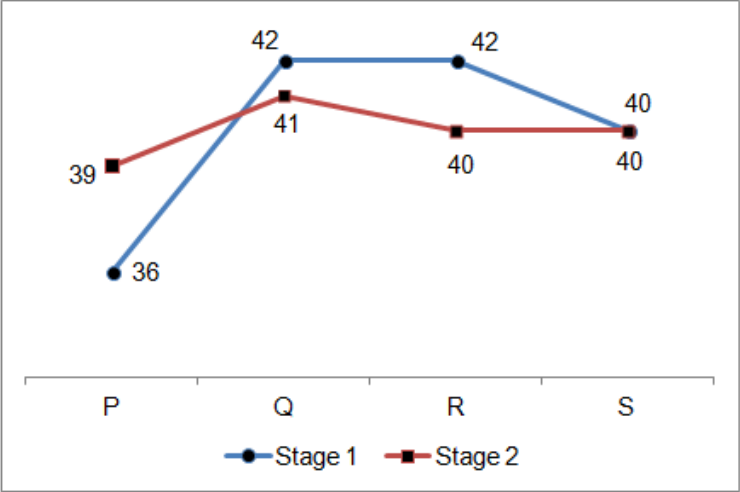
Section	Freshers	Work experience
A	55%	
B		45%
C	55%	
D	m%	n%

Refer to the data below and answer the questions that follow.

P, Q, R and S are four children each having distinct number of Re. 1 coins. Six teachers – A, B, C, D, E and F selected two children in the same order. Also, no two teachers selected the same pair of children. The two children selected by teacher A divided their coins equally between each other. The same holds true for the pair of children selected by other teachers as well.

The following line graph provides information about the number of coins with P, Q, R and S at two stages:  
Stage I: After the children selected by teacher C divided their coins.  
Stage II: After the children selected by teacher F divided their coins.

It is known that the teacher F selected children R and S, whereas teacher C selected children Q and R.



1) For which of the following teachers, the children selected by them cannot be uniquely determined?

- ☐ D
- ☐ E
- ☐ Both (D) and (E)
- ☐ Neither (D) nor (E)

Video Explanation: ▼

Explanation: ▼

We know that the pair Q-R was the third pair to be selected. Therefore, the number of coins with P and S remained unchanged after selection 2. Also since Q and R exchanged coins in selection 3, the number of coins with Q and R after selection 2 must be  $(42 + a)$  and  $(42 - a)$ . Similarly we know that R-S was the sixth pair to be selected. Therefore, the number of coins with P and Q remained unchanged after selection 5. Also since R and S exchanged coins in selection 6, the number of coins with R and S after selection 5 must be  $(40 + b)$  and  $(40 - b)$ .  
Note: The values of  $a$  and  $b$  can be negative.  
In selection 5, the number of coins with two of the four children were equal as a result of exchange of coins in selection 5. Therefore, the number of coins with R and S must be 39 and 41 in some order. So far we have,

	P	Q	R	S	Selected children
Initial					
A					
B	36	$42 + a$	$42 - a$	40	
C	36	42	42	40	Q-R
D					
E	39	41	39/41	41/39	
F	39	41	40	40	R-S

Now, it can be seen that the number of coins with all four of them underwent change between Selection 3 and Selection 5. Therefore, two mutually exclusive pairs were chosen in Selection 4 and 5. These pairs must be (P-R) and (Q-S) in some order.

Case 1: Pair P-R is selected in Selection 4 and pair Q-S is selected in Selection 5

In Selection 4, P and R exchange coins and the number of coins with each of them =  $\frac{36 + 42}{2} = 39$ .

Therefore, we have the following:

	P	Q	R	S	Selected children
Initial					
A					
B	36	$42 + a$	$42 - a$	40	
C	36	42	42	40	Q-R
D	39	42	39	40	P-R
E	39	41	39	41	Q-S
F	39	41	40	40	R-S

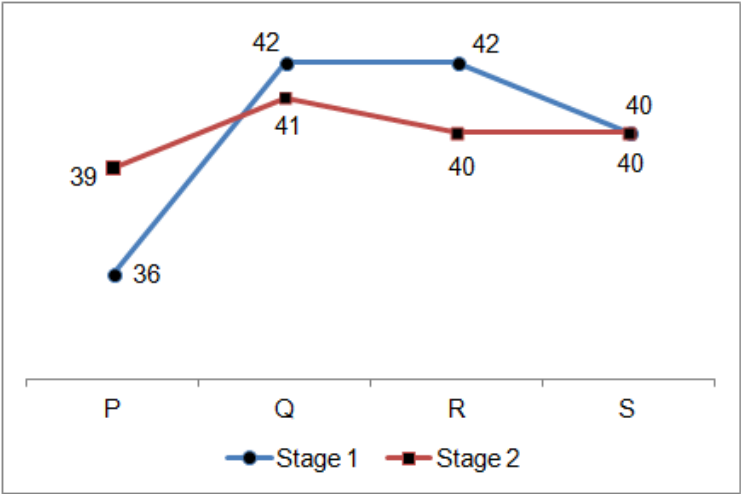
Case 2: Pair Q-S is selected in Selection 4 and pair P-R is selected in Selection 5

Refer to the data below and answer the questions that follow.

P, Q, R and S are four children each having distinct number of Re. 1 coins. Six teachers – A, B, C, D, E and F selected two children in the same order. Also, no two teachers selected the same pair of children. The two children selected by teacher A divided their coins equally between each other. The same holds true for the pair of children selected by other teachers as well.

The following line graph provides information about the number of coins with P, Q, R and S at two stages:  
Stage I: After the children selected by teacher C divided their coins.  
Stage II: After the children selected by teacher F divided their coins.

It is known that the teacher F selected children R and S, whereas teacher C selected children Q and R.



	P	Q	R	S	Selected children
Initial					
A					
B	36	42 + a	42 – a	40	
C	36	42	42	40	Q- R
D	36	41	42	41	Q- S
E	39	41	39	41	P- R
F	39	41	40	40	R- S

Both are valid cases.  
Now, in both the cases, in selection 1 and 2, the pairs selected must be P-S and P-Q in the same order (since in selection 2, the number of coins with P and S are different.). Accordingly we have the following:

	Case 1					Case 2				
	P	Q	R	S	Selection	P	Q	R	S	Selection
	40 – y	32	48	40 + y		40 – y	32	48	40 + y	
A	40	32	48	40	P- S	40	32	48	40	P- S
B	36	36	48	40	P- Q	36	36	48	40	P- Q
C	36	42	42	40	Q- R	36	42	42	40	Q- R
D	39	42	39	40	P- R	36	41	42	41	Q- S
E	39	41	39	41	Q- S	39	41	39	41	P- R
F	39	41	40	40	R- S	39	41	40	40	R- S

Hence, [3].

Correct Answer:

Time taken by you: 0 secs

Avg Time taken by all students: 273 secs

Your Attempt: Skipped

% Students got it correct: 59 %

2) How many coins did R have initially?

- ☐ 48
- ☐ 32
- ☐ 40
- ☐ Cannot be determined

Video Explanation:

Explanation:

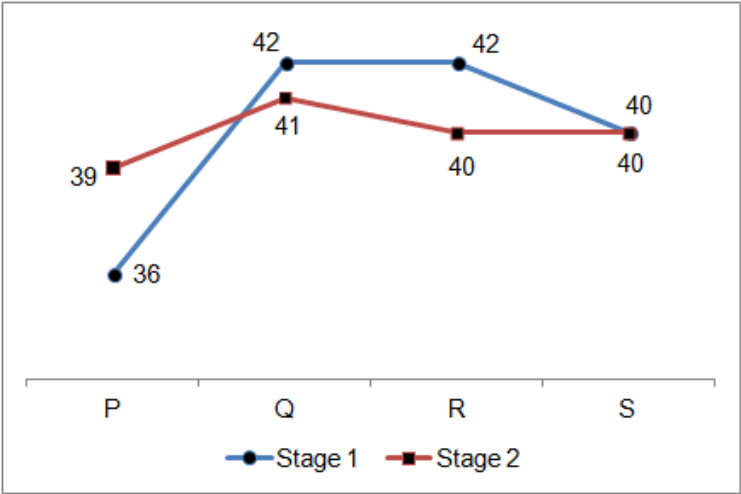
We know that the pair Q-R was the third pair to be selected. Therefore, the number of coins with P and S remained unchanged after selection 2. Also since Q and R exchanged coins in selection 3, the number of coins with Q and R after selection 2 must be (42 + a) and (42 – a). Similarly we know that R-S was the sixth pair to be selected. Therefore, the number of coins with P and Q remained unchanged after selection 5. Also since R and S exchanged coins in selection 6, the number of coins with R and S after

Refer to the data below and answer the questions that follow.

P, Q, R and S are four children each having distinct number of Re. 1 coins. Six teachers – A, B, C, D, E and F selected two children in the same order. Also, no two teachers selected the same pair of children. The two children selected by teacher A divided their coins equally between each other. The same holds true for the pair of children selected by other teachers as well.

The following line graph provides information about the number of coins with P, Q, R and S at two stages:  
Stage I: After the children selected by teacher C divided their coins.  
Stage II: After the children selected by teacher F divided their coins.

It is known that the teacher F selected children R and S, whereas teacher C selected children Q and R.



In selection 5, the number of coins with two of the four children were equal as a result of exchange of coins in selection 5. Therefore, the number of coins with R and S must be 39 and 41 in some order. So far we have,

	P	Q	R	S	Selected children
Initial					
A					
B	36	42 + a	42 – a	40	
C	36	42	42	40	Q-R
D					
E	39	41	39/41	41/39	
F	39	41	40	40	R-S

Now, it can be seen that the number of coins with all four of them underwent change between Selection 3 and Selection 5. Therefore, two mutually exclusive pairs were chosen in Selection 4 and 5. These pairs must be (P-R) and (Q-S) in some order.

Case 1: Pair P-R is selected in Selection 4 and pair Q-S is selected in Selection 5

In Selection 4, P and R exchange coins and the number of coins with each of them =  $\frac{36 + 42}{2} = 39$ .

Therefore, we have the following:

	P	Q	R	S	Selected children
Initial					
A					
B	36	42 + a	42 – a	40	
C	36	42	42	40	Q-R
D	39	42	39	40	P-R
E	39	41	39	41	Q-S
F	39	41	40	40	R-S

Case 2: Pair Q-S is selected in Selection 4 and pair P-R is selected in Selection 5

In Selection 4, Q and S exchange coins and the number of coins with each of them =  $\frac{42 + 40}{2} = 41$ .

Therefore, we have the following:

	P	Q	R	S	Selected children
Initial					
A					
B	36	42 + a	42 – a	40	
C	36	42	42	40	Q-R
D	36	41	42	41	Q-S
E	39	41	39	41	P-R
F	39	41	40	40	R-S

Both are valid cases.

Now, in both the cases, in selection 1 and 2, the pairs selected must be P-S and P-Q in the same order (since in selection 2, the number of coins with P and S are different.).

Accordingly we have the following:

Case 1						Case 2				
	P	Q	R	S	Selection	P	Q	R	S	Selection
	40 – y	32	48	40 + y		40 – y	32	48	40 + y	
A	40	32	48	40	P-S	40	32	48	40	P-S
B	36	36	48	40	P-Q	36	36	48	40	P-Q
C	36	42	42	40	Q-R	36	42	42	40	Q-R
D	39	42	39	40	P-R	36	41	42	41	Q-S
E	39	41	39	41	Q-S	39	41	39	41	P-R
F	39	41	40	40	R-S	39	41	40	40	R-S

Hence, [1].

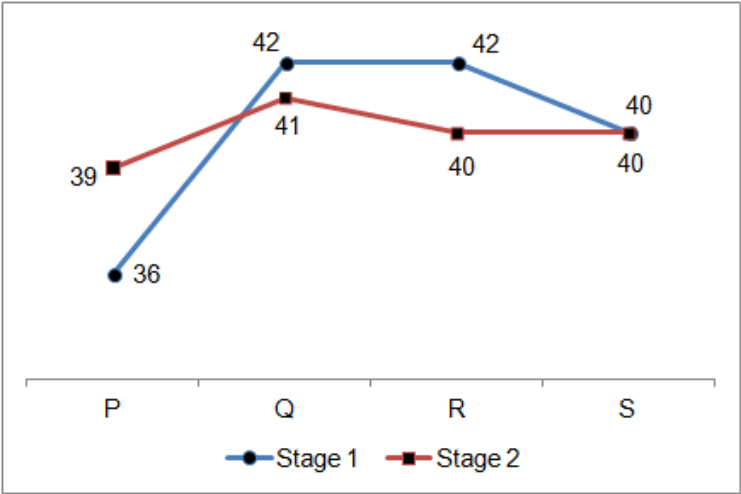


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P, Q, R and S are four children each having distinct number of Re. 1 coins. Six teachers – A, B, C, D, E and F selected two children in the same order. Also, no two teachers selected the same pair of children. The two children selected by teacher A divided their coins equally between each other. The same holds true for the pair of children selected by other teachers as well.

The following line graph provides information about the number of coins with P, Q, R and S at two stages:  
Stage I: After the children selected by teacher C divided their coins.  
Stage II: After the children selected by teacher F divided their coins.

It is known that the teacher F selected children R and S, whereas teacher C selected children Q and R.



Time taken by you: 0 secs

Avg Time taken by all students: 98 secs

Your Attempt: Skipped

% Students got it correct: 48 %

3) How many coins did P have initially?

- ☐ 48
- ☐ 32
- ☐ 40
- ☐ Cannot be determined

Video Explanation:

Explanation:

We know that the pair Q-R was the third pair to be selected. Therefore, the number of coins with P and S remained unchanged after selection 2. Also since Q and R exchanged coins in selection 3, the number of coins with Q and R after selection 2 must be  $(42 + a)$  and  $(42 - a)$ . Similarly we know that R-S was the sixth pair to be selected. Therefore, the number of coins with P and Q remained unchanged after selection 5. Also since R and S exchanged coins in selection 6, the number of coins with R and S after selection 5 must be  $(40 + b)$  and  $(40 - b)$ .  
Note: The values of a and b can be negative.  
In selection 5, the number of coins with two of the four children were equal as a result of exchange of coins in selection 5. Therefore, the number of coins with R and S must be 39 and 41 in some order. So far we have,

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Initial					
A					
B	36	$42 + a$	$42 - a$	40	
C	36	42	42	40	Q-R
D					
E	39	41	39/41	41/39	
F	39	41	40	40	R-S

Now, it can be seen that the number of coins with all four of them underwent change between Selection 3 and Selection 5. Therefore, two mutually exclusive pairs were chosen in Selection 4 and 5. These pairs must be (P-R) and (Q-S) in some order.

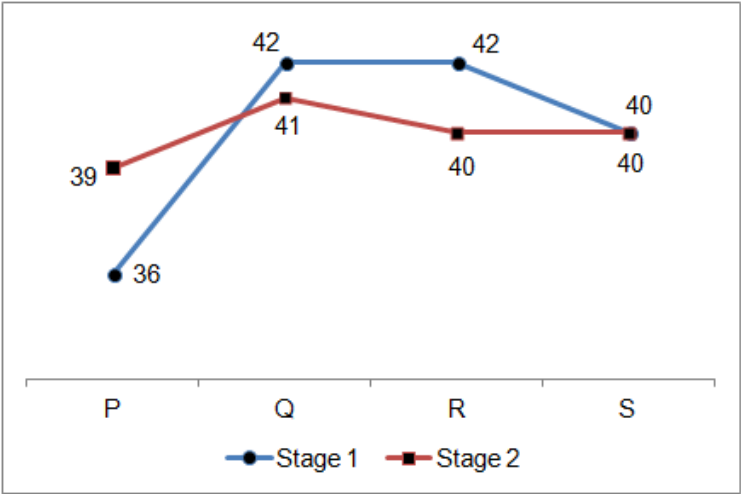
Case 1: Pair P-R is selected in Selection 4 and pair Q-S is selected in Selection 5

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P, Q, R and S are four children each having distinct number of Re. 1 coins. Six teachers – A, B, C, D, E and F selected two children in the same order. Also, no two teachers selected the same pair of children. The two children selected by teacher A divided their coins equally between each other. The same holds true for the pair of children selected by other teachers as well.

The following line graph provides information about the number of coins with P, Q, R and S at two stages:  
Stage I: After the children selected by teacher C divided their coins.  
Stage II: After the children selected by teacher F divided their coins.

It is known that the teacher F selected children R and S, whereas teacher C selected children Q and R.



	P	Q	R	S	Selected children
Initial					
A					
B	36	42 + a	42 – a	40	
C	36	42	42	40	Q-R
D	39	42	39	40	P-R
E	39	41	39	41	Q-S
F	39	41	40	40	R-S

Case 2: Pair Q-S is selected in Selection 4 and pair P-R is selected in Selection 5

In Selection 4, Q and S exchange coins and the number of coins with each of them =  $\frac{42 + 40}{2} = 41$

Therefore, we have the following:

	P	Q	R	S	Selected children
Initial					
A					
B	36	42 + a	42 – a	40	
C	36	42	42	40	Q-R
D	36	41	42	41	Q-S
E	39	41	39	41	P-R
F	39	41	40	40	R-S

Both are valid cases.

Now, in both the cases, in selection 1 and 2, the pairs selected must be P-S and P-Q in the same order (since in selection 2, the number of coins with P and S are different.). Accordingly we have the following:

	Case 1					Case 2				
	P	Q	R	S	Selection	P	Q	R	S	Selection
	40 – y	32	48	40 + y		40 – y	32	48	40 + y	
A	40	32	48	40	P-S	40	32	48	40	P-S
B	36	36	48	40	P-Q	36	36	48	40	P-Q
C	36	42	42	40	Q-R	36	42	42	40	Q-R
D	39	42	39	40	P-R	36	41	42	41	Q-S
E	39	41	39	41	Q-S	39	41	39	41	P-R
F	39	41	40	40	R-S	39	41	40	40	R-S

Hence, [4].

Correct Answer:

Time taken by you: 0 secs

Avg Time taken by all students: 36 secs

Your Attempt: Skipped

% Students got it correct: 54 %

4) Which two children were selected by teacher B?

- ☐ Q and R
- ☐ P and Q
- ☐ P and S
- ☐ Cannot be determined

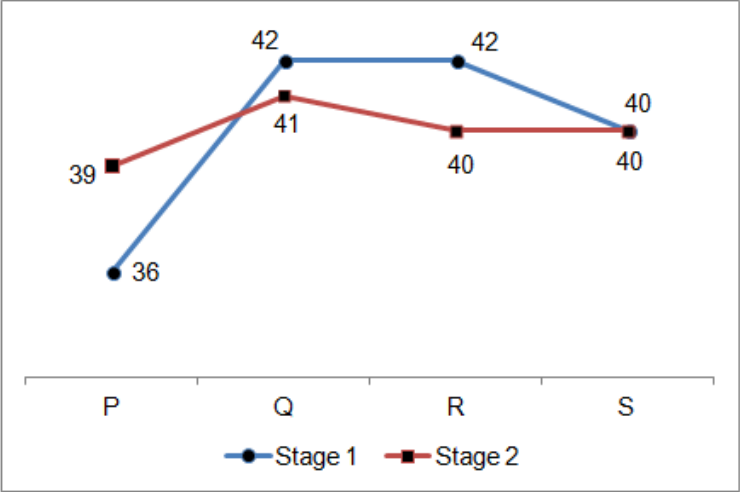
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The following line graph provides information about the number of coins with P, Q, R and S at two stages:

Stage I: After the children selected by teacher C divided their coins.  
Stage II: After the children selected by teacher F divided their coins.

It is known that the teacher F selected children R and S, whereas teacher C selected children Q and R.



Explanation:

We know that the pair Q-R was the third pair to be selected. Therefore, the number of coins with P and S remained unchanged after selection 2. Also since Q and R exchanged coins in selection 3, the number of coins with Q and R after selection 2 must be  $(42 + a)$  and  $(42 - a)$ .

Similarly we know that R-S was the sixth pair to be selected. Therefore, the number of coins with P and Q remained unchanged after selection 5. Also since R and S exchanged coins in selection 6, the number of coins with R and S after selection 5 must be  $(40 + b)$  and  $(40 - b)$ .

Note: The values of  $a$  and  $b$  can be negative.

In selection 5, the number of coins with two of the four children were equal as a result of exchange of coins in selection 5. Therefore, the number of coins with R and S must be 39 and 41 in some order. So far we have,

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C	36	42	42	40	Q-R
D					
E	39	41	39/41	41/39	
F	39	41	40	40	R-S

Now, it can be seen that the number of coins with all four of them underwent change between Selection 3 and Selection 5. Therefore, two mutually exclusive pairs were chosen in Selection 4 and 5. These pairs must be (P-R) and (Q-S) in some order.

Case 1: Pair P-R is selected in Selection 4 and pair Q-S is selected in Selection 5

In Selection 4, P and R exchange coins and the number of coins with each of them =  $\frac{36 + 42}{2} = 39$ .

Therefore, we have the following:

	P	Q	R	S	Selected children
Initial					
A					
B	36	$42 + a$	$42 - a$	40	
C	36	42	42	40	Q-R
D	39	42	39	40	P-R
E	39	41	39	41	Q-S
F	39	41	40	40	R-S

Case 2: Pair Q-S is selected in Selection 4 and pair P-R is selected in Selection 5

In Selection 4, Q and S exchange coins and the number of coins with each of them =  $\frac{42 + 40}{2} = 41$

Therefore, we have the following:

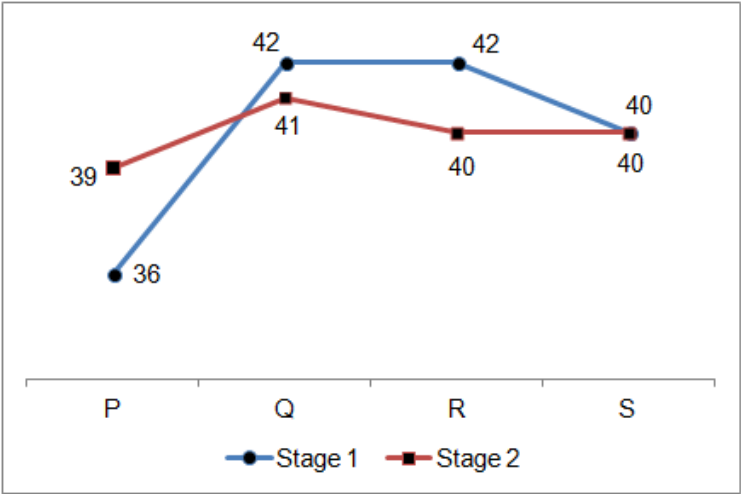
	P	Q	R	Change Section here ▼	
Initial					
A					
B	36	42 + a	42 – a	40	
C	36	42	42	40	Q-R
D	36	41	42	41	Q-S
E	39	41	39	41	P-R
F	39	41	40	40	R-S

Refer to the data below and answer the questions that follow.

P, Q, R and S are four children each having distinct number of Re. 1 coins. Six teachers – A, B, C, D, E and F selected two children in the same order. Also, no two teachers selected the same pair of children. The two children selected by teacher A divided their coins equally between each other. The same holds true for the pair of children selected by other teachers as well.

The following line graph provides information about the number of coins with P, Q, R and S at two stages:  
Stage I: After the children selected by teacher C divided their coins.  
Stage II: After the children selected by teacher F divided their coins.

It is known that the teacher F selected children R and S, whereas teacher C selected children Q and R.



Both are valid cases.  
Now, in both the cases, in selection 1 and 2, the pairs selected must be P-S and P-Q in the same order (since in selection 2, the number of coins with P and S are different.). Accordingly we have the following:

	Case 1					Case 2				
	P	Q	R	S	Selection	P	Q	R	S	Selection
	40 – y	32	48	40 + y		40 – y	32	48	40 + y	
A	40	32	48	40	P-S	40	32	48	40	P-S
B	36	36	48	40	P-Q	36	36	48	40	P-Q
C	36	42	42	40	Q-R	36	42	42	40	Q-R
D	39	42	39	40	P-R	36	41	42	41	Q-S
E	39	41	39	41	Q-S	39	41	39	41	P-R
F	39	41	40	40	R-S	39	41	40	40	R-S

Hence, [2].

Correct Answer: ▼

Time taken by you: 0 secs

Avg Time taken by all students: 56 secs

Your Attempt: Skipped

% Students got it correct: 54 %

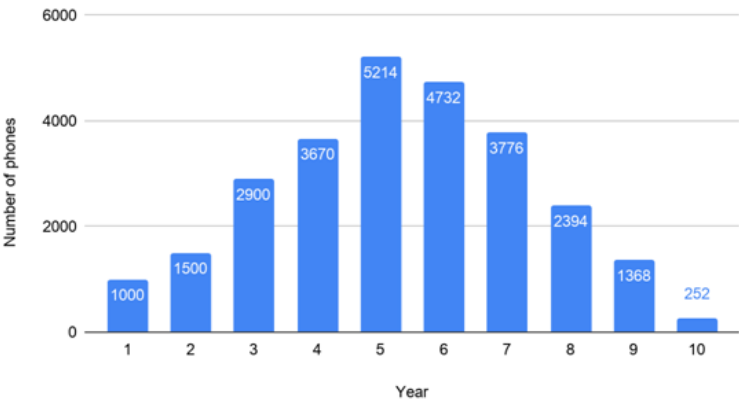
Loading...

Refer to the data below and answer the questions that follow.

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The following graph shows the number of phones with Dr. Pakshirajan (i.e., the number of phones other than those discarded or added to his memento collection) on 15<sup>th</sup> August of different years. It is known that he added 252 phones to his memento collection in year 10 and was left with no phone after that.

Number of phones with Dr. Pakshirajan



1) Which of the following is not a number of phones added to memento collection by Dr. Pakshirajan?

- ☐ 756
- ☐ 864
- ☐ 1008
- ☐ 504

Video Explanation: ▼

Explanation: ▼

It can be seen that all the phones bought on 1<sup>st</sup> January of year 'm' were either discarded or added to memento collection by October of year (m + 4). Thus Dr. Pakshirajan did not have any phone in year (m + 5) that he bought in year 'm'. Since he did not have any phone left at the end of the year 10, he bought phones only in the first six years and he did not buy a single phone in the years 7, 8, 9 and 10. Also, out of the phones bought in year 6, the number of phones added to his memento collection in year 10 = 252.

The percentage of phones bought in year 'm' that are added to memento collection in year (m + 4) =  $100 \times (1 - 0.1) \times (1 - 0.2) \times (1 - 0.3) = 50.4\%$ .

Only option [2] does not result in integer number of phones purchased. Hence, [2].

Correct Answer: ▼

Time taken by you: 0 secs

Avg Time taken by all students: 153 secs

Your Attempt: Skipped

% Students got it correct: 53 %

2) What is the sum of the total number of phones discarded by Dr. Pakshirajan over the given years?

- ☐ 3224
- ☐ 2876
- ☐ 3644
- ☐ 4812

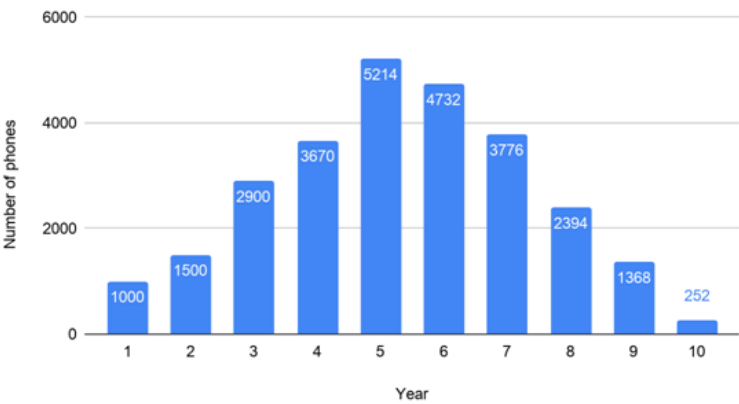
Video Explanation: ▼

Refer to the data below and answer the questions that follow.

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The following graph shows the number of phones with Dr. Pakshirajan (i.e., the number of phones other than those discarded or added to his memento collection) on 15<sup>th</sup> August of different years. It is known that he added 252 phones to his memento collection in year 10 and was left with no phone after that.

Number of phones with Dr. Pakshirajan



It can be seen that all the phones bought on 1<sup>st</sup> January of year 'm' were either discarded or added to memento collection by October of year (m + 4). Thus Dr. Pakshirajan did not have any phone in year (m + 5) that he bought in year 'm'. Since he did not have any phone left at the end of the year 10, he bought phones only in the first six years and he did not buy a single phone in the years 7, 8, 9 and 10. Also, out of the phones bought in year 6, the number of phones added to his memento collection in year 10 = 252.

The percentage of phones bought in year 'm' that are added to memento collection in year (m + 4) =  $100 \times (1 - 0.1) \times (1 - 0.2) \times (1 - 0.3) = 50.4\%$ .

Thus,  $(100 - 50.4)\% = 49.6\%$  phones were discarded by him. Only option that gives integer value of the number of phones, when divided by 0.496 is 3224. Hence, [1].

Correct Answer:

Time taken by you: 0 secs

Avg Time taken by all students: 24 secs

Your Attempt: Skipped

% Students got it correct: 21 %

3) What is the number of phones bought by Dr. Pakshirajan on 1<sup>st</sup> January of year 5?

Enter your response (as an integer) using the virtual keyboard in the box provided below.

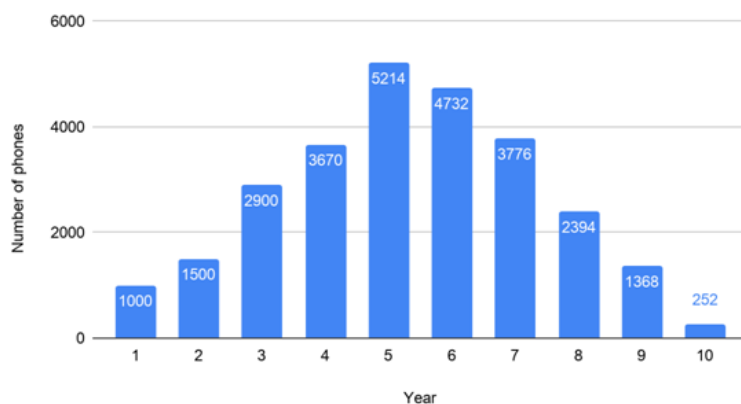
Video Explanation:

Refer to the data below and answer the questions that follow.

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The following graph shows the number of phones with Dr. Pakshirajan (i.e., the number of phones other than those discarded or added to his memento collection) on 15<sup>th</sup> August of different years. It is known that he added 252 phones to his memento collection in year 10 and was left with no phone after that.

Number of phones with Dr. Pakshirajan



It can be seen that all the phones bought on 1<sup>st</sup> January of year 'm' were either discarded or added to memento collection by October of year (m + 4). Thus Dr. Pakshirajan did not have any phone in year (m + 5) that he bought in year 'm'. Since he did not have any phone left at the end of the year 10, he bought phones only in the first six years and he did not buy a single phone in the years 7, 8, 9 and 10. Also, out of the phones bought in year 6, the number of phones added to his memento collection in year 10 = 252.

The percentage of phones bought in year 'm' that are added to memento collection in year (m + 4) =  $100 \times (1 - 0.1) \times (1 - 0.2) \times (1 - 0.3) = 50.4\%$ .

Therefore, the number of phones bought in year 6 =  $\frac{252}{0.504} = 500$

The reduction in the number of phones between years 9 and 10:  $1368 - 252 = 1116$ . In year 9, 50.4% of the phones bought in year 5 are added to memento collection and certain number of phones bought in year 6 are discarded. We have the following cases:

	x	y	Percentage of phones retained in the year (m + 2)	Percentage of phones discarded in the year (m + 3)
Case 1	10%	20%	$100 \times (1 - 0.1) \times (1 - 0.2) = 72\%$	$72\% \times 0.3 = 21.6\%$
Case 2	10%	30%	$100 \times (1 - 0.1) \times (1 - 0.3) = 63\%$	$63\% \times 0.2 = 12.6\%$
Case 3	20%	10%	$100 \times (1 - 0.2) \times (1 - 0.1) = 72\%$	$72\% \times 0.3 = 21.6\%$
Case 4	20%	30%	$100 \times (1 - 0.2) \times (1 - 0.3) = 56\%$	$56\% \times 0.1 = 5.6\%$
Case 5	30%	10%	$100 \times (1 - 0.3) \times (1 - 0.1) = 63\%$	$63\% \times 0.2 = 12.6\%$
Case 6	30%	20%	$100 \times (1 - 0.3) \times (1 - 0.2) = 56\%$	$56\% \times 0.1 = 5.6\%$

So percentage of phones discarded in year (m+3) = 21.6% or 12.6% or 5.6%.

The number of phones bought in year 6 that are discarded in year 9 = 21.6% of 500 = 108 or 12.6% of 500 = 63 or 5.6% of 500 = 28.

If he bought 'M' phones in year 5, we have,  $0.504M + (108 \text{ or } 63 \text{ or } 28) = 1116$

Therefore,  $0.504M = 1008 \text{ or } 1053 \text{ or } 1088$ .

Only case 1 and case 3 gives integer value of M and that is equal to  $\frac{1008}{0.504} = 2000$ .

Thus, number of phones bought in the year 5 were 2000.

Therefore, x = 10%, y = 20% and z = 30% or x = 20%, y = 10% and z = 30%

By further calculation it can be shown that x cannot be 20%. For solving the question we do not require the value of x, hence, these calculations are not shown here.

Dr. Pakshirajan bought 2000 phones in year 5.

Therefore, the required answer is 2000.

Correct Answer:

Time taken by you: 0 secs

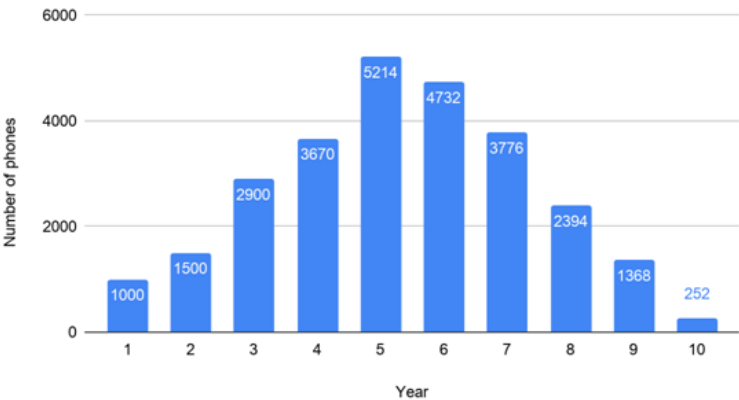
Avg Time taken by all students: 4 secs

Refer to the data below and answer the questions that follow.

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The following graph shows the number of phones with Dr. Pakshirajan (i.e., the number of phones other than those discarded or added to his memento collection) on 15<sup>th</sup> August of different years. It is known that he added 252 phones to his memento collection in year 10 and was left with no phone after that.

Number of phones with Dr. Pakshirajan



% Students got it correct: 5 %

4) What is the value of ‘N’? (Write your answer as 0, if cannot be determined).

Enter your response (as an integer) using the virtual keyboard in the box provided below.

Video Explanation:

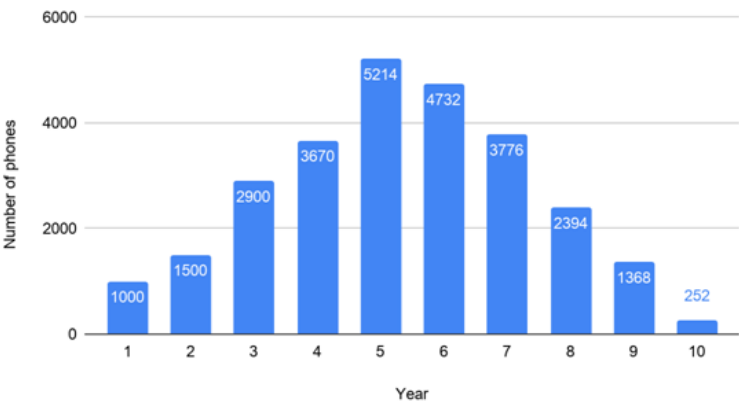


Refer to the data below and answer the questions that follow.

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Number of phones with Dr. Pakshirajan



It can be seen that all the phones bought on 1<sup>st</sup> January of year 'm' were either discarded or added to memento collection by October of year (m + 4). Thus Dr. Pakshirajan did not have any phone in year (m + 5) that he bought in year 'm'. Since he did not have any phone left at the end of the year 10, he bought phones only in the first six years and he did not buy a single phone in the years 7, 8, 9 and 10. Also, out of the phones bought in year 6, the number of phones added to his memento collection in year 10 = 252.

The percentage of phones bought in year 'm' that are added to memento collection in year (m + 4) =  $100 \times (1 - 0.1) \times (1 - 0.2) \times (1 - 0.3) = 50.4\%$ .

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The number of phones bought in year 6 that are discarded in year 9 = 21.6% of 500 = 108 or 12.6% of 500 = 63 or 5.6% of 500 = 28.

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Thus, number of phones bought in the year 5 were 2000.

Therefore, x = 10%, y = 20% and z = 30% or x = 20%, y = 10% and z = 30%

By further calculation it can be shown that x cannot be 20%. For solving the question we do not require the value of x, hence, these calculations are not shown here.

N = Number of consecutive years in which Dr. Pakshirajan bought mobile phones. Dr. Pakshirajan bought mobile phones for 6 consecutive years.

Therefore, the required answer is 6.

Correct Answer: ▼

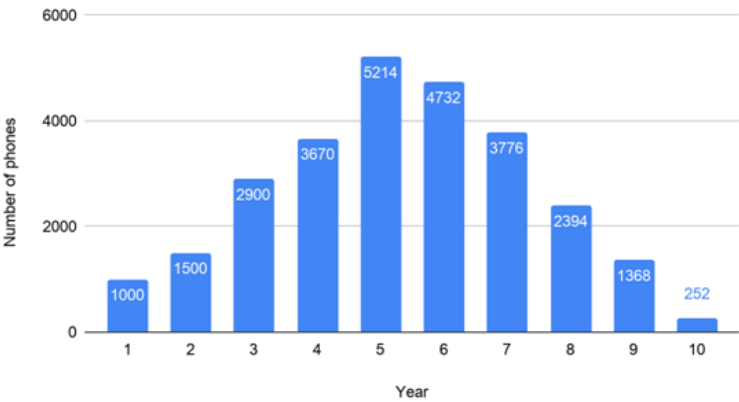
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Loading...

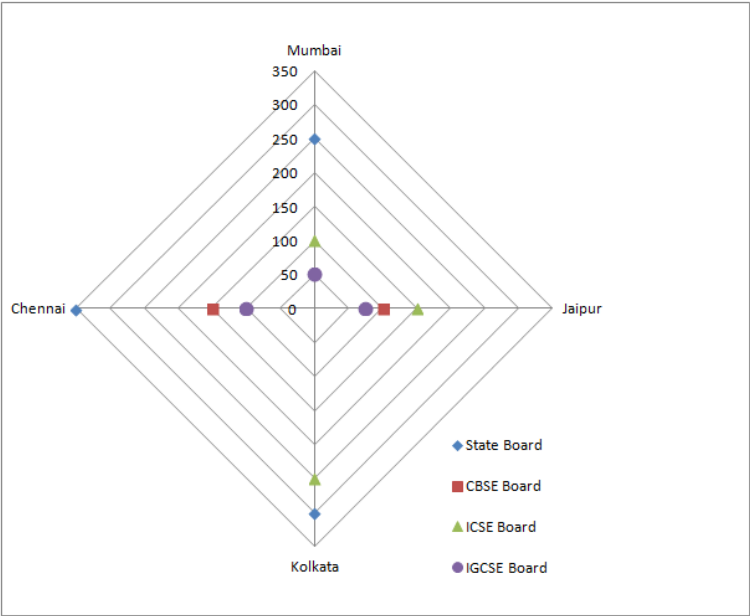
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Number of phones with Dr. Pakshirajan



Refer to the data below and answer the questions that follow.

Four cities Mumbai, Jaipur, Kolkata and Chennai have schools of four different education boards namely State board, CBSE board, ICSE board and IGCSE board. The number of schools of each type of boards in each city is a non zero multiple of 25. The following graph shows the partial information about the number of schools of different boards in the four cities for the year 2018:



Following points are known:

- 1. The number of CBSE Board Schools in Mumbai was 80% of the number of State Board Schools in Jaipur.
- 2. Total number of Schools of State Board category in four cities was 325% greater than that of IGCSE Board category.
- 3. The number of IGCSE Board Schools and CBSE Board Schools was same in Kolkata.
- 4. The number of ICSE Board Schools in Chennai was one third the number of CBSE Board Schools in Mumbai.
- 5. The total number of schools of all the boards combined across the given four cities was 2800.

1) What was the number of ICSE Board Schools in Chennai in the year 2018?

Enter your response (as an integer) using the virtual keyboard in the box provided below.

Video Explanation: ▼

Explanation: ▼

By using the information given in the graph and points 3, 2, 1 and 4 in the given sequence, the following table can be made:

	Mumbai	Jaipur	Kolkata	Chennai	Total
State Board	250	$(225 + a)4.25 - 900$	300	350	$(225 + a)4.25$
CBSE Board	$[(225 + a)4.25 - 900]0.80$	100	a	150	
ICSE Board	100	150	250	$[(225 + a)4.25 - 900](0.80/3)$	
IGCSE Board	50	75	a	100	$225 + a$

Given, total number of four boards schools in the four cities = 2,800

$$(225 + a)4.25 + [(225 + a)4.25 - 900]0.80 + 100 + a + 150 + 100 + 150 + 250 + [(225 + a)4.25 - 900](0.80/3) + (225 + a) = 2800$$

Let  $(225 + a)$  be x

$$4.25x + 3.4x - 720 + 750 + x - 225 + \frac{3.4x - 720}{3} + x = 2800$$
$$9.65x - 195 + \frac{3.4x - 720}{3} = 2800$$
$$32.35x - 1305 = 8400$$
$$32.35x = 9705$$
$$x = 300$$

Thus,  $a = 300 - 225 = 75$

	Mumbai	Jaipur	Kolkata	Chennai	Total
State Board	250	375	300	350	1275
CBSE Board	300	100	75	150	625
ICSE Board	100	150	250	100	600
IGCSE Board	50	75	75	100	300
Total	700	700	700	700	2800

The number of ICSE Board schools in Chennai in the year 2018 was 100.  
Therefore, the required answer is 100.

Correct Answer: ▼

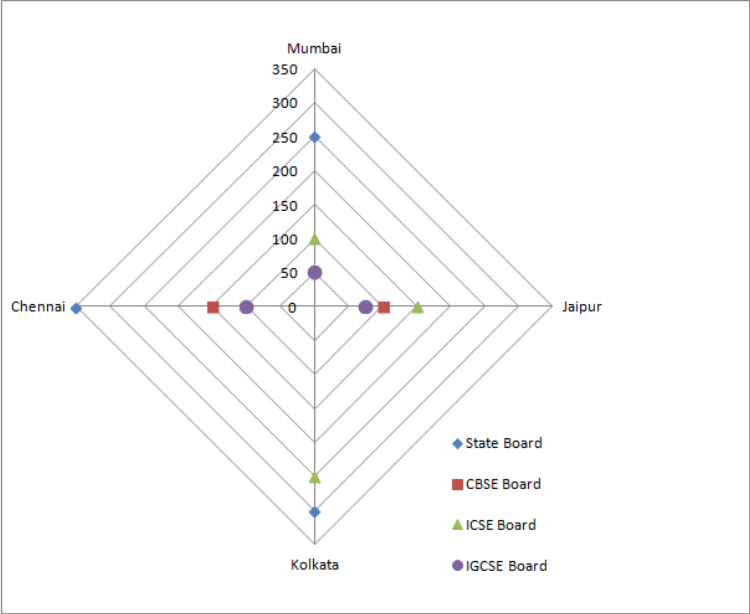
Time taken by you: **332 secs**

Avg Time taken by all students: **563 secs**

% Students got it correct: 54 %

Refer to the data below and answer the questions that follow.

Four cities Mumbai, Jaipur, Kolkata and Chennai have schools of four different education boards namely State board, CBSE board, ICSE board and IGCSE board. The number of schools of each type of boards in each city is a non zero multiple of 25. The following graph shows the partial information about the number of schools of different boards in the four cities for the year 2018:



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4. The number of ICSE Board Schools in Chennai was one third the number of CBSE Board Schools in Mumbai.
5. The total number of schools of all the boards combined across the given four cities was 2800.

Your Attempt: Skipped

- 2) In the year 2019, 12% of State Board Schools in Jaipur are closed down, but the total number of schools in the city remained the same. For this the number of ICSE and IGCSE Board Schools was increased by ‘p’ percentage each. What is the value of ‘p’?

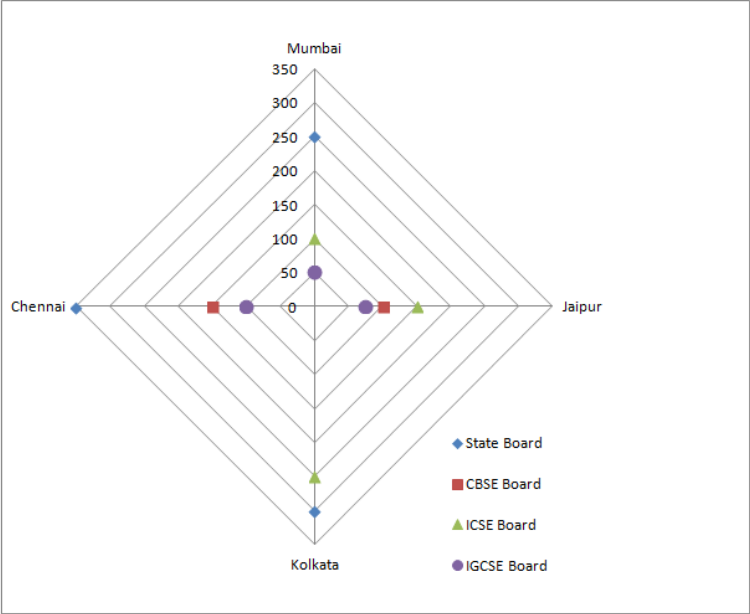
Enter your response (as an integer) using the virtual keyboard in the box provided below.

Video Explanation:



Refer to the data below and answer the questions that follow.

Four cities Mumbai, Jaipur, Kolkata and Chennai have schools of four different education boards namely State board, CBSE board, ICSE board and IGCSE board. The number of schools of each type of boards in each city is a non zero multiple of 25. The following graph shows the partial information about the number of schools of different boards in the four cities for the year 2018:



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Explanation:

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IGCSE Board	50	75	a	100	$225 + a$

Given, total number of four boards schools in the four cities = 2,800

$$(225 + a)4.25 + [(225 + a)4.25 - 900]0.80 + 100 + a + 150 + 100 + 250 + [(225 + a)4.25 - 900](0.80/3) + (225 + a) = 2800$$

Let  $(225 + a)$  be  $x$

$$4.25x + 3.4x - 720 + 750 + x - 225 + \frac{3.4x - 720}{3} + x = 2800$$
$$9.65x - 195 + \frac{3.4x - 720}{3} = 2800$$
$$32.35x - 1305 = 8400$$
$$32.35x = 9705$$
$$x = 300$$

Thus,  $a = 300 - 225 = 75$

	Mumbai	Jaipur	Kolkata	Chennai	Total
State Board	250	375	300	350	1275
CBSE Board	300	100	75	150	625
ICSE Board	100	150	250	100	600
IGCSE Board	50	75	75	100	300
Total	700	700	700	700	2800

12% of State Board Schools in Jaipur =  $375 \times 0.12 = 45$

$$(150 \times p) + (75 \times p) = 45$$
$$p = 20\%$$

Therefore, the required answer is 20.

Correct Answer: ▼

Time taken by you: 0 secs

Avg Time taken by all students: 65 secs

Your Attempt: Skipped

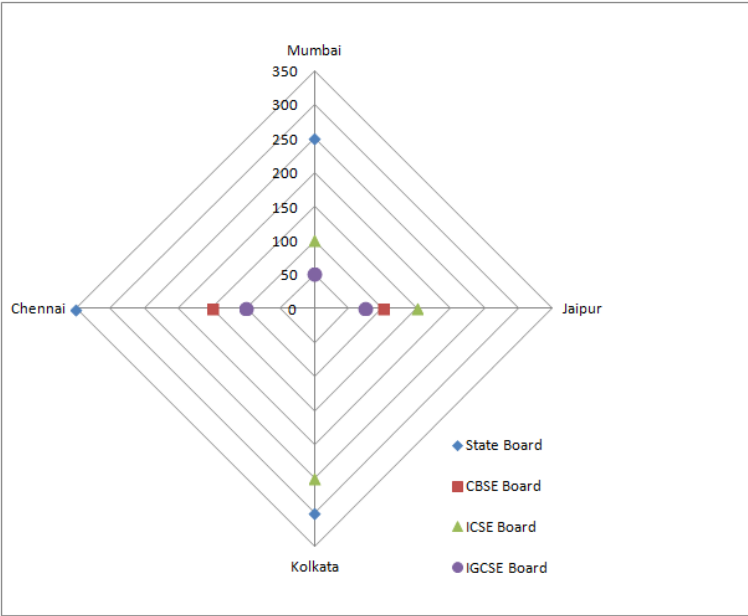
% Students got it correct: 51 %

3) What was the average number of CBSE Board schools in the given four cities in the year 2018? —

● 156.25

Refer to the data below and answer the questions that follow.

Four cities Mumbai, Jaipur, Kolkata and Chennai have schools of four different education boards namely State board, CBSE board, ICSE board and IGCSE board. The number of schools of each type of boards in each city is a non zero multiple of 25. The following graph shows the partial information about the number of schools of different boards in the four cities for the year 2018:



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5. The total number of schools of all the boards combined across the given four cities was 2800.

Cannot be determined

Video Explanation:

Explanation:

By using the information given in the graph and points 3, 2, 1 and 4 in the given sequence, the following table can be made:

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CBSE Board	$[(225 + a)4.25 - 900]0.80$	100	$a$	150	
ICSE Board	100	150	250	$[(225 + a)4.25 - 900](0.80/3)$	
IGCSE Board	50	75	$a$	100	$225 + a$

Given, total number of four boards schools in the four cities = 2,800

$$(225 + a)4.25 + [(225 + a)4.25 - 900]0.80 + 100 + a + 150 + 100 + 150 + 250 + [(225 + a)4.25 - 900](0.80/3) + (225 + a) = 2800$$

Let  $(225 + a)$  be  $x$

$$4.25x + 3.4x - 720 + 750 + x - 225 + \frac{3.4x - 720}{3} + x = 2800$$
$$9.65x - 195 + \frac{3.4x - 720}{3} = 2800$$
$$32.35x - 1305 = 8400$$
$$32.35x = 9705$$
$$x = 300$$

Thus,  $a = 300 - 225 = 75$

	Mumbai	Jaipur	Kolkata	Chennai	Total
State Board	250	375	300	350	1275
CBSE Board	300	100	75	150	625
ICSE Board	100	150	250	100	600
IGCSE Board	50	75	75	100	300
Total	700	700	700	700	2800

625/4 = 156.25  
Hence, [1].

Correct Answer:

Time taken by you: 0 secs

Avg Time taken by all students: 95 secs

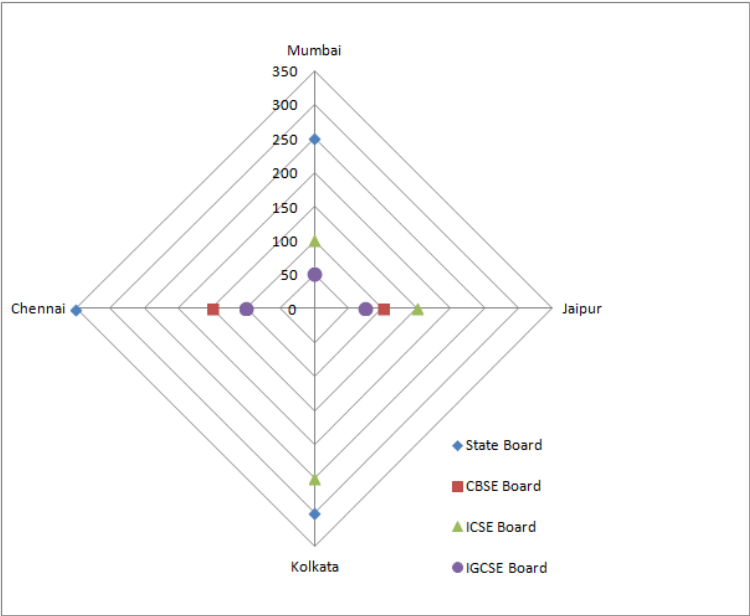
Your Attempt: Skipped

% Students got it correct: 84 %

4) In the year 2019, the number of CBSE Board Schools in Kolkata increased by m% and the number of ICSE Board Schools in Jaipur also increased by m%. As a result, the

Refer to the data below and answer the questions that follow.

Four cities Mumbai, Jaipur, Kolkata and Chennai have schools of four different education boards namely State board, CBSE board, ICSE board and IGCSE board. The number of schools of each type of boards in each city is a non zero multiple of 25. The following graph shows the partial information about the number of schools of different boards in the four cities for the year 2018:



Following points are known:

1. The number of CBSE Board Schools in Mumbai was 80% of the number of State Board Schools in Jaipur.
2. Total number of Schools of State Board category in four cities was 325% greater than that of IGCSE Board category.
3. The number of IGCSE Board Schools and CBSE Board Schools was same in Kolkata.
4. The number of ICSE Board Schools in Chennai was one third the number of CBSE Board Schools in Mumbai.
5. The total number of schools of all the boards combined across the given four cities was 2800.

- ☐ 20
- ☐ 25
- ☐ 33.33
- ☐ 37.5

Video Explanation:

Explanation:

By using the information given in the graph and points 3, 2, 1 and 4 in the given sequence, the following table can be made:

	Mumbai	Jaipur	Kolkata	Chennai	Total
State Board	250	$(225 + a)4.25 - 900$	300	350	$(225 + a)4.25$
CBSE Board	$[(225 + a)4.25 - 900]0.80$	100	a	150	
ICSE Board	100	150	250	$[(225 + a)4.25 - 900](0.80/3)$	
IGCSE Board	50	75	a	100	$225 + a$

Given, total number of four boards schools in the four cities = 2,800

$$(225 + a)4.25 + [(225 + a)4.25 - 900]0.80 + 100 + a + 150 + 100 + 150 + 250 + [(225 + a)4.25 - 900](0.80/3) + (225 + a) = 2800$$

Let  $(225 + a)$  be x

$$4.25x + 3.4x - 720 + 750 + x - 225 + \frac{3.4x - 720}{3} + x = 2800$$
$$9.65x - 195 + \frac{3.4x - 720}{3} = 2800$$
$$32.35x - 1305 = 8400$$
$$32.35x = 9705$$
$$x = 300$$

Thus,  $a = 300 - 225 = 75$

	Mumbai	Jaipur	Kolkata	Chennai	Total
State Board	250	375	300	350	1275
CBSE Board	300	100	75	150	625
ICSE Board	100	150	250	100	600
IGCSE Board	50	75	75	100	300
Total	700	700	700	700	2800

Given,  $150m - 75m = 25$   
Thus,  $75m = 25$   
 $m = \frac{1}{3} = 33.33\%$   
  
Hence, [3].

Correct Answer:

Time taken by you: 0 secs

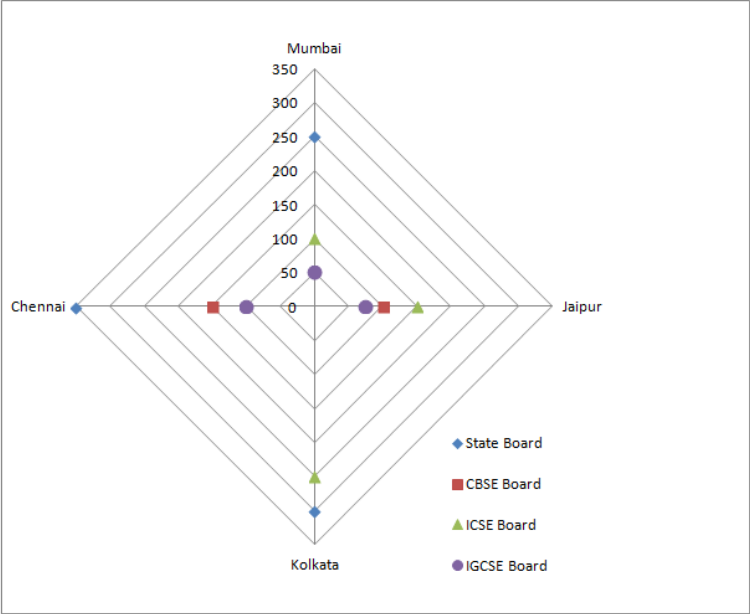
Avg Time taken by all students: 125 secs

Your Attempt: Skipped



Refer to the data below and answer the questions that follow.

Four cities Mumbai, Jaipur, Kolkata and Chennai have schools of four different education boards namely State board, CBSE board, ICSE board and IGCSE board. The number of schools of each type of boards in each city is a non zero multiple of 25. The following graph shows the partial information about the number of schools of different boards in the four cities for the year 2018:



ing...

Following points are known:

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2. Total number of Schools of State Board category in four cities was 325% greater than that of IGCSE Board category.
3. The number of IGCSE Board Schools and CBSE Board Schools was same in Kolkata.
4. The number of ICSE Board Schools in Chennai was one third the number of CBSE Board Schools in Mumbai.
5. The total number of schools of all the boards combined across the given four cities was 2800.



Refer to the data below and answer the questions that follow.

In Kanodia Residential School, every week, 6 students are given the responsibility of grocery shopping for Hostel mess. All six students have to go for shopping every day from Monday to Friday in the pair of two. In each pair, one student gets Rs. 500 more than the other student. Each student has to make pair with each other student exactly once in the whole week. From 22<sup>nd</sup> July to 26<sup>th</sup> July, 6 students, P, Q, R, S, T and U were given the responsibility for the shopping of the hostel mess. The following table shows the amount received by each of them (in Rs.) on each day from Monday to Friday.

Student	Monday	Tuesday	Wednesday	Thursday	Friday
P	3,700	3,500	2,300	2,700	2,900
Q	4,800	3,500	2,800	2,700	2,400
R	4,200	3,500	2,800	3,200	3,400
S	4,300	3,000	3,300	3,200	2,100
T	4,200	3,000	2,300	2,700	2,900
U	3,700	3,000	2,800	3,200	2,600

1) On which day was Q paired with T?

- ☐ Tuesday
- ☐ Wednesday
- ☐ Friday
- ☐ Cannot be determined

Video Explanation:

Explanation:

If we look at the amount with each student on Monday, we can say that Q(4,800) and S(4,300) were paired together. Now on Friday, we can say that S(2,100) and U(2,600) were paired together. S and T can be paired together only on Thursday. Now on the remaining 2 days, S must be paired with P and R. On Wednesday, S(3,300) cannot be paired with P, thus, S was paired with R(2,800). On Tuesday, S(3,000) was paired with P(3,500).

We can tabulate the following the information we have so far, as given below.

Monday		Tuesday		Wednesday		Thursday		Friday	
Q(4,800)	S(4,300)	P(3,500)	S(3,000)	R(2,800)	S(3,300)	T(2,700)	S(3,200)	U(2,600)	S(2,100)
R(4,200)	(3,700)	Q(3,500)	(3,000)	Q(2,800)	(2,300)	R(3,200)	(2,700)	R(3,400)	(2,900)
T(4,200)	(3,700)	R(3,500)	(3,000)	U(2,800)	(2,300)	U(3,200)	(2,700)	(2,900)	Q(2,400)

In the table we can see that Q and R cannot be paired on Monday, Tuesday, Wednesday and Friday. Thus, Q(2,700) and R(3,200) were paired on Thursday. Now the third pair on Thursday must be P(2,700) and U(3,200). Thus, on Wednesday, U(2,800) was definitely paired with T(2,300). The third pair on Wednesday was P(2,300) and Q(2,800). Now on Friday Q(2,400) was definitely paired with T(2,900). P(2,900) was paired with R(3,400). Therefore, on Monday P(3,700) must have been paired with T(4,200) and R(4,200) with U(3,700). So on Tuesday R(3,500) was paired with T(3,000) and Q(3,500) with U(3,000).

Monday		Tuesday		Wednesday		Thursday		Friday	
Q(4,800)	S(4,300)	P(3,500)	S(3,000)	R(2,800)	S(3,300)	T(2,700)	S(3,200)	U(2,600)	S(2,100)
R(4,200)	U(3,700)	Q(3,500)	U(3,000)	Q(2,800)	P(2,300)	R(3,200)	Q(2,700)	R(3,400)	P(2,900)
T(4,200)	P(3,700)	R(3,500)	T(3,000)	U(2,800)	T(2,300)	U(3,200)	P(2,700)	T(2,900)	Q(2,400)

Q was paired with T on Friday.  
Hence, [3].

Correct Answer:

Time taken by you: 0 secs

Avg Time taken by all students: 393 secs

Your Attempt: Skipped

% Students got it correct: 44 %

Refer to the data below and answer the questions that follow.

In Kanodia Residential School, every week, 6 students are given the responsibility of grocery shopping for Hostel mess. All six students have to go for shopping every day from Monday to Friday in the pair of two. In each pair, one student gets Rs. 500 more than the other student. Each student has to make pair with each other student exactly once in the whole week. From 22<sup>nd</sup> July to 26<sup>th</sup> July, 6 students, P, Q, R, S, T and U were given the responsibility for the shopping of the hostel mess. The following table shows the amount received by each of them (in Rs.) on each day from Monday to Friday.

Student	Monday	Tuesday	Wednesday	Thursday	Friday
P	3,700	3,500	2,300	2,700	2,900
Q	4,800	3,500	2,800	2,700	2,400
R	4,200	3,500	2,800	3,200	3,400
S	4,300	3,000	3,300	3,200	2,100
T	4,200	3,000	2,300	2,700	2,900
U	3,700	3,000	2,800	3,200	2,600

- ☐ S
- ☐ T
- ☐ U
- ☐ Cannot be determined

Video Explanation:

Explanation:

If we look at the amount with each student on Monday, we can say thatQ(4,800) and S(4,300) were paired together. Now on Friday, we can say that S(2,100) and U(2,600) were paired together. S and T can be paired together only on Thursday. Now on the remaining 2 days, S must be paired with P and R. On Wednesday, S(3,300) cannot be paired with P, thus, S was paired with R(2,800). On Tuesday, S(3,000) was paired with P(3,500).

We can tabulate the following the information we have so far, as given below.

Monday		Tuesday		Wednesday		Thursday		Friday	
Q(4,800)	S(4,300)	P(3,500)	S(3,000)	R(2,800)	S(3,300)	T(2,700)	S(3,200)	U(2,600)	S(2,100)
R(4,200)	(3,700)	Q(3,500)	(3,000)	Q(2,800)	(2,300)	R(3,200)	(2,700)	R(3,400)	(2,900)
T(4,200)	(3,700)	R(3,500)	(3,000)	U(2,800)	(2,300)	U(3,200)	(2,700)	(2,900)	Q(2,400)

In the table we can see that Q and R cannot be paired on Monday, Tuesday, Wednesday and Friday. Thus, Q(2,700) and R(3,200) were paired on Thursday. Now the third pair on Thursday must be P(2,700) and U(3,200). Thus, on Wednesday, U(2,800) was definitely paired with T(2,300). The third pair on Wednesday was P(2,300) and Q(2,800). Now on Friday Q(2,400) was definitely paired with T(2,900). P(2,900) was paired with R(3,400). Therefore, on Monday P(3,700) must have been paired with T(4,200) and R(4,200) with U(3,700). So on Tuesday R(3,500) was paired with T(3,000) and Q(3,500) with U(3,000).

Monday		Tuesday		Wednesday		Thursday		Friday	
Q(4,800)	S(4,300)	P(3,500)	S(3,000)	R(2,800)	S(3,300)	T(2,700)	S(3,200)	U(2,600)	S(2,100)
R(4,200)	U(3,700)	Q(3,500)	U(3,000)	Q(2,800)	P(2,300)	R(3,200)	Q(2,700)	R(3,400)	P(2,900)
T(4,200)	P(3,700)	R(3,500)	T(3,000)	U(2,800)	T(2,300)	U(3,200)	P(2,700)	T(2,900)	Q(2,400)

On Tuesday R was paired with T.  
Hence, [2].

Correct Answer:

Time taken by you: 0 secs

Avg Time taken by all students: 61 secs

Your Attempt: Skipped

% Students got it correct: 46 %

Refer to the data below and answer the questions that follow.

In Kanodia Residential School, every week, 6 students are given the responsibility of grocery shopping for Hostel mess. All six students have to go for shopping every day from Monday to Friday in the pair of two. In each pair, one student gets Rs. 500 more than the other student. Each student has to make pair with each other student exactly once in the whole week. From 22<sup>nd</sup> July to 26<sup>th</sup> July, 6 students, P, Q, R, S, T and U were given the responsibility for the shopping of the hostel mess. The following table shows the amount received by each of them (in Rs.) on each day from Monday to Friday.

Student	Monday	Tuesday	Wednesday	Thursday	Friday
P	3,700	3,500	2,300	2,700	2,900
Q	4,800	3,500	2,800	2,700	2,400
R	4,200	3,500	2,800	3,200	3,400
S	4,300	3,000	3,300	3,200	2,100
T	4,200	3,000	2,300	2,700	2,900
U	3,700	3,000	2,800	3,200	2,600

Enter your response (as an integer) using the virtual keyboard in the box provided below.

Video Explanation: 

Explanation: 

If we look at the amount with each student on Monday, we can say thatQ(4,800) and S(4,300) were paired together. Now on Friday, we can say that S(2,100) and U(2,600) were paired together. S and T can be paired together only on Thursday. Now on the remaining 2 days, S must be paired with P and R. On Wednesday, S(3,300) cannot be paired with P, thus, S was paired with R(2,800). On Tuesday, S(3,000) was paired with P(3,500).

We can tabulate the following the information we have so far, as given below.

Monday		Tuesday		Wednesday		Thursday		Friday	
Q(4,800)	S(4,300)	P(3,500)	S(3,000)	R(2,800)	S(3,300)	T(2,700)	S(3,200)	U(2,600)	S(2,100)
R(4,200)	(3,700)	Q(3,500)	(3,000)	Q(2,800)	(2,300)	R(3,200)	(2,700)	R(3,400)	(2,900)
T(4,200)	(3,700)	R(3,500)	(3,000)	U(2,800)	(2,300)	U(3,200)	(2,700)	(2,900)	Q(2,400)

In the table we can see that Q and R cannot be paired on Monday, Tuesday, Wednesday and Friday. Thus, Q(2,700) and R(3,200) were paired on Thursday. Now the third pair on Thursday must be P(2,700) and U(3,200). Thus, on Wednesday, U(2,800) was definitely paired with T(2,300). The third pair on Wednesday was P(2,300) and Q(2,800). Now on Friday Q(2,400) was definitely paired with T(2,900). P(2,900) was paired with R(3,400). Therefore, on Monday P(3,700) must have been paired with T(4,200) and R(4,200) with U(3,700). So on Tuesday R(3,500) was paired with T(3,000) and Q(3,500) with U(3,000).

Monday		Tuesday		Wednesday		Thursday		Friday	
Q(4,800)	S(4,300)	P(3,500)	S(3,000)	R(2,800)	S(3,300)	T(2,700)	S(3,200)	U(2,600)	S(2,100)
R(4,200)	U(3,700)	Q(3,500)	U(3,000)	Q(2,800)	P(2,300)	R(3,200)	Q(2,700)	R(3,400)	P(2,900)
T(4,200)	P(3,700)	R(3,500)	T(3,000)	U(2,800)	T(2,300)	U(3,200)	P(2,700)	T(2,900)	Q(2,400)

The total amount = 4200 + 3700 + 3500 + 3000 + 2800 + 2300 + 3200 + 2700 + 3400 + 2900 = 31700  
Therefore, the required answer is 31700.

Correct Answer: 

Time taken by you: 0 secs

Avg Time taken by all students: 65 secs

Your Attempt: Skipped

% Students got it correct: 35 %

Refer to the data below and answer the questions that follow.

In Kanodia Residential School, every week, 6 students are given the responsibility of grocery shopping for Hostel mess. All six students have to go for shopping every day from Monday to Friday in the pair of two. In each pair, one student gets Rs. 500 more than the other student. Each student has to make pair with each other student exactly once in the whole week. From 22<sup>nd</sup> July to 26<sup>th</sup> July, 6 students, P, Q, R, S, T and U were given the responsibility for the shopping of the hostel mess. The following table shows the amount received by each of them (in Rs.) on each day from Monday to Friday.

Student	Monday	Tuesday	Wednesday	Thursday	Friday
P	3,700	3,500	2,300	2,700	2,900
Q	4,800	3,500	2,800	2,700	2,400
R	4,200	3,500	2,800	3,200	3,400
S	4,300	3,000	3,300	3,200	2,100
T	4,200	3,000	2,300	2,700	2,900
U	3,700	3,000	2,800	3,200	2,600

Enter your response (as an integer) using the virtual keyboard in the box provided below.

Video Explanation: 

Explanation: 

If we look at the amount with each student on Monday, we can say thatQ(4,800) and S(4,300) were paired together. Now on Friday, we can say that S(2,100) and U(2,600) were paired together. S and T can be paired together only on Thursday. Now on the remaining 2 days, S must be paired with P and R. On Wednesday, S(3,300) cannot be paired with P, thus, S was paired with R(2,800). On Tuesday, S(3,000) was paired with P(3,500).

We can tabulate the following the information we have so far, as given below.

Monday		Tuesday		Wednesday		Thursday		Friday	
Q(4,800)	S(4,300)	P(3,500)	S(3,000)	R(2,800)	S(3,300)	T(2,700)	S(3,200)	U(2,600)	S(2,100)
R(4,200)	(3,700)	Q(3,500)	(3,000)	Q(2,800)	(2,300)	R(3,200)	(2,700)	R(3,400)	(2,900)
T(4,200)	(3,700)	R(3,500)	(3,000)	U(2,800)	(2,300)	U(3,200)	(2,700)	(2,900)	Q(2,400)

In the table we can see that Q and R cannot be paired on Monday, Tuesday, Wednesday and Friday. Thus, Q(2,700) and R(3,200) were paired on Thursday. Now the third pair on Thursday must be P(2,700) and U(3,200). Thus, on Wednesday, U(2,800) was definitely paired with T(2,300). The third pair on Wednesday was P(2,300) and Q(2,800). Now on Friday Q(2,400) was definitely paired with T(2,900). P(2,900) was paired with R(3,400). Therefore, on Monday P(3,700) must have been paired with T(4,200) and R(4,200) with U(3,700). So on Tuesday R(3,500) was paired with T(3,000) and Q(3,500) with U(3,000).

Monday		Tuesday		Wednesday		Thursday		Friday	
Q(4,800)	S(4,300)	P(3,500)	S(3,000)	R(2,800)	S(3,300)	T(2,700)	S(3,200)	U(2,600)	S(2,100)
R(4,200)	U(3,700)	Q(3,500)	U(3,000)	Q(2,800)	P(2,300)	R(3,200)	Q(2,700)	R(3,400)	P(2,900)
T(4,200)	P(3,700)	R(3,500)	T(3,000)	U(2,800)	T(2,300)	U(3,200)	P(2,700)	T(2,900)	Q(2,400)

The minimum amount was received by U and S on Friday = 2600 + 2100 = 4700.  
Therefore, the required answer is 4700.

Correct Answer: 

Time taken by you: 0 secs

Avg Time taken by all students: 97 secs

Your Attempt: Skipped

% Students got it correct: 72 %

Refer to the data below and answer the questions that follow.

In Kanodia Residential School, every week, 6 students are given the responsibility of grocery shopping for Hostel mess. All six students have to go for shopping every day from Monday to Friday in the pair of two. In each pair, one student gets Rs. 500 more than the other student. Each student has to make pair with each other student exactly once in the whole week. From 22<sup>nd</sup> July to 26<sup>th</sup> July, 6 students, P, Q, R, S, T and U were given the responsibility for the shopping of the hostel mess. The following table shows the amount received by each of them (in Rs.) on each day from Monday to Friday.

Student	Monday	Tuesday	Wednesday	Thursday	Friday
P	3,700	3,500	2,300	2,700	2,900
Q	4,800	3,500	2,800	2,700	2,400
R	4,200	3,500	2,800	3,200	3,400
S	4,300	3,000	3,300	3,200	2,100
T	4,200	3,000	2,300	2,700	2,900
U	3,700	3,000	2,800	3,200	2,600

Loading...

Refer to the data below and answer the questions that follow.

The American Board of Pediatrics (ABM) organized five conferences on five subjects Adolescent Medicine, Pediatric Cardiology, Developmental-Behavioral Pediatrics, Pediatric Endocrinology and Pediatric Gastroenterology from 21<sup>st</sup> August to 25<sup>th</sup> August, 2019 in that order. Ten Pediatricians, A, B, C, D, E, F, G, H, I and J from four countries Canada, Argentina, Brazil and Peru attended the conferences. Each Pediatrician attended one conference for half day and another conference for full day.

Following information is known about the conferences:

- 1. 3 Pediatricians were from Canada and Peru each and 2 Pediatricians were from Brazil and Argentina each.
- 2. All 3 Pediatricians from Canada attended full day conference on Developmental-Behavioral Pediatrics.
- 3. No Pediatrician attended Pediatric Cardiology conference for half day.
- 4. B, D and E were from Peru and each of them attended Adolescent Medicine conference for half day.
- 5. C & F were from Brazil and attended Pediatric Cardiology conference for full day.
- 6. A, F and I attended Pediatric Gastroenterology conference for half day.
- 7. No two Pediatricians attended conferences on same subject combination.
- 8. J did not attend conference on Adolescent Medicine. H and I did not attend conference on Developmental-Behavioral Pediatrics.

1) Which conference did H attend for full day?

—

- ☐ Pediatric Gastroenterology
- ☐ Pediatric Cardiology
- ☐ Pediatric Endocrinology
- ☐ Cannot be determined

Video Explanation:

▼

Refer to the data below and answer the questions that follow.

The American Board of Pediatrics (ABM) organized five conferences on five subjects Adolescent Medicine, Pediatric Cardiology, Developmental-Behavioral Pediatrics, Pediatric Endocrinology and Pediatric Gastroenterology from 21<sup>st</sup> August to 25<sup>th</sup> August, 2019 in that order. Ten Pediatricians, A, B, C, D, E, F, G, H, I and J from four countries Canada, Argentina, Brazil and Peru attended the conferences. Each Pediatrician attended one conference for half day and another conference for full day.

Following information is known about the conferences:

- 3 Pediatricians were from Canada and Peru each and 2 Pediatricians were from Brazil and Argentina each.
- All 3 Pediatricians from Canada attended full day conference on Developmental-Behavioral Pediatrics.
- No Pediatrician attended Pediatric Cardiology conference for half day.
- B, D and E were from Peru and each of them attended Adolescent Medicine conference for half day.
- C & F were from Brazil and attended Pediatric Cardiology conference for full day.
- A, F and I attended Pediatric Gastroenterology conference for half day.
- No two Pediatricians attended conferences on same subject combination.
- J did not attend conference on Adolescent Medicine. H and I did not attend conference on Developmental-Behavioral Pediatrics.

Using points 1, 2, 4, 5, 6 & 8 it is clear that A, G and J are from Canada and the table can be partially filled as follows:

Pediatrician	Country	Full day	Half day
A	Canada	Developmental-Behavioral Pediatrics	Pediatric Gastroenterology
B	Peru		Adolescent Medicine
C	Brazil	Pediatric Cardiology	
D	Peru		Adolescent Medicine
E	Peru		Adolescent Medicine
F	Brazil	Pediatric Cardiology	Pediatric Gastroenterology
G	Canada	Developmental-Behavioral Pediatrics	
H	Argentina		
I	Argentina		Pediatric Gastroenterology
J	Canada	Developmental-Behavioral Pediatrics	


Using point 7: Conference of each subject was attended by 4 Pediatricians. Since no one attended Pediatric Cardiology conference for half day it can be concluded that 4 pediatricians attended conference on Pediatric Cardiology for full day. Since F attended full day conference on Pediatric Cardiology and half day conference on Pediatric Gastroenterology, I did not attend full day conference on Pediatric Cardiology, Thus, definitely H and one among B, D and E attended full day conference on Pediatric Cardiology.

G and J attended half day conference on Adolescent Medicine or Pediatric Endocrinology in any order. Using point 8, J attended half day conference on Pediatric Endocrinology and G attended half day conference on Adolescent Medicine. I definitely attended the Pediatric Endocrinology conference for full day. Since H did not attend conference on Developmental-Behavioral Pediatrics, the conference combination of Pediatric Cardiology and Developmental-Behavioral Pediatrics must have been attended by C. Thus, H definitely attended Pediatric Endocrinology conference for half day.

B, D and E attended full day conference on Pediatric Cardiology, Pediatric Endocrinology and Pediatric Endocrinology in any order.

Pediatrician	Country	Full day	Half day
A	Canada	Developmental-Behavioral Pediatrics	Pediatric Gastroenterology
B	Peru		Adolescent Medicine
C	Brazil	Pediatric Cardiology	Developmental-Behavioral Pediatrics
D	Peru		Adolescent Medicine
E	Peru		Adolescent Medicine
F	Brazil	Pediatric Cardiology	Pediatric Gastroenterology
G	Canada	Developmental-Behavioral Pediatrics	Adolescent Medicine
H	Argentina	Pediatric Cardiology	Pediatric Endocrinology
I	Argentina	Pediatric Endocrinology	Pediatric Gastroenterology
J	Canada	Developmental-Behavioral Pediatrics	Pediatric Endocrinology

Hence, [2].

Correct Answer: 

Time taken by you: 843 secs

Avg Time taken by all students: 277 secs

Your Attempt: Skipped

% Students got it correct: 35 %



Refer to the data below and answer the questions that follow.

The American Board of Pediatrics (ABM) organized five conferences on five subjects Adolescent Medicine, Pediatric Cardiology, Developmental-Behavioral Pediatrics, Pediatric Endocrinology and Pediatric Gastroenterology from 21<sup>st</sup> August to 25<sup>th</sup> August, 2019 in that order. Ten Pediatricians, A, B, C, D, E, F, G, H, I and J from four countries Canada, Argentina, Brazil and Peru attended the conferences. Each Pediatrician attended one conference for half day and another conference for full day.

Following information is known about the conferences:

1. 3 Pediatricians were from Canada and Peru each and 2 Pediatricians were from Brazil and Argentina each.
2. All 3 Pediatricians from Canada attended full day conference on Developmental-Behavioral Pediatrics.
3. No Pediatrician attended Pediatric Cardiology conference for half day.
4. B, D and E were from Peru and each of them attended Adolescent Medicine conference for half day.
5. C & F were from Brazil and attended Pediatric Cardiology conference for full day.
6. A, F and I attended Pediatric Gastroenterology conference for half day.
7. No two Pediatricians attended conferences on same subject combination.
8. J did not attend conference on Adolescent Medicine. H and I did not attend conference on Developmental-Behavioral Pediatrics.

2) Which conference did B attend for full day?

- ☐ Pediatric Gastroenterology
- ☐ Pediatric Cardiology
- ☐ Pediatric Endocrinology
- ☐ Cannot be determined

Video Explanation:





Refer to the data below and answer the questions that follow.

The American Board of Pediatrics (ABM) organized five conferences on five subjects Adolescent Medicine, Pediatric Cardiology, Developmental-Behavioral Pediatrics, Pediatric Endocrinology and Pediatric Gastroenterology from 21<sup>st</sup> August to 25<sup>th</sup> August, 2019 in that order. Ten Pediatricians, A, B, C, D, E, F, G, H, I and J from four countries Canada, Argentina, Brazil and Peru attended the conferences. Each Pediatrician attended one conference for half day and another conference for full day.

Following information is known about the conferences:

- 3 Pediatricians were from Canada and Peru each and 2 Pediatricians were from Brazil and Argentina each.
- All 3 Pediatricians from Canada attended full day conference on Developmental-Behavioral Pediatrics.
- No Pediatrician attended Pediatric Cardiology conference for half day.
- B, D and E were from Peru and each of them attended Adolescent Medicine conference for half day.
- C & F were from Brazil and attended Pediatric Cardiology conference for full day.
- A, F and I attended Pediatric Gastroenterology conference for half day.
- No two Pediatricians attended conferences on same subject combination.
- J did not attend conference on Adolescent Medicine. H and I did not attend conference on Developmental-Behavioral Pediatrics.

Using points 1, 2, 4, 5, 6 & 8 it is clear that A, G and J are from Canada and the table can be partially filled as follows:

Pediatrician	Country	Full day	Half day
A	Canada	Developmental-Behavioral Pediatrics	Pediatric Gastroenterology
B	Peru		Adolescent Medicine
C	Brazil	Pediatric Cardiology	
D	Peru		Adolescent Medicine
E	Peru		Adolescent Medicine
F	Brazil	Pediatric Cardiology	Pediatric Gastroenterology
G	Canada	Developmental-Behavioral Pediatrics	
H	Argentina		
I	Argentina		Pediatric Gastroenterology
J	Canada	Developmental-Behavioral Pediatrics	

Using point 7: Conference of each subject was attended by 4 Pediatricians. Since no one attended Pediatric Cardiology conference for half day it can be concluded that 4 pediatricians attended conference on Pediatric Cardiology for full day. Since F attended full day conference on Pediatric Cardiology and half day conference on Pediatric Gastroenterology, I did not attend full day conference on Pediatric Cardiology, Thus, definitely H and one among B, D and E attended full day conference on Pediatric Cardiology.

G and J attended half day conference on Adolescent Medicine or Pediatric Endocrinology in any order. Using point 8, J attended half day conference on Pediatric Endocrinology and G attended half day conference on Adolescent Medicine. I definitely attended the Pediatric Endocrinology conference for full day. Since H did not attend conference on Developmental-Behavioral Pediatrics, the conference combination of Pediatric Cardiology and Developmental-Behavioral Pediatrics must have been attended by C. Thus, H definitely attended Pediatric Endocrinology conference for half day.

B, D and E attended full day conference on Pediatric Cardiology, Pediatric Endocrinology and Pediatric Endocrinology in any order.

Pediatrician	Country	Full day	Half day
A	Canada	Developmental-Behavioral Pediatrics	Pediatric Gastroenterology
B	Peru		Adolescent Medicine
C	Brazil	Pediatric Cardiology	Developmental-Behavioral Pediatrics
D	Peru		Adolescent Medicine
E	Peru		Adolescent Medicine
F	Brazil	Pediatric Cardiology	Pediatric Gastroenterology
G	Canada	Developmental-Behavioral Pediatrics	Adolescent Medicine
H	Argentina	Pediatric Cardiology	Pediatric Endocrinology
I	Argentina	Pediatric Endocrinology	Pediatric Gastroenterology
J	Canada	Developmental-Behavioral Pediatrics	Pediatric Endocrinology

Hence, [4].

Correct Answer:

▼

Time taken by you: 7 secs

Avg Time taken by all students: 93 secs

Your Attempt: Skipped

Refer to the data below and answer the questions that follow.

The American Board of Pediatrics (ABM) organized five conferences on five subjects Adolescent Medicine, Pediatric Cardiology, Developmental-Behavioral Pediatrics, Pediatric Endocrinology and Pediatric Gastroenterology from 21<sup>st</sup> August to 25<sup>th</sup> August, 2019 in that order. Ten Pediatricians, A, B, C, D, E, F, G, H, I and J from four countries Canada, Argentina, Brazil and Peru attended the conferences. Each Pediatrician attended one conference for half day and another conference for full day.

Following information is known about the conferences:

- 1. 3 Pediatricians were from Canada and Peru each and 2 Pediatricians were from Brazil and Argentina each.
- 2. All 3 Pediatricians from Canada attended full day conference on Developmental-Behavioral Pediatrics.
- 3. No Pediatrician attended Pediatric Cardiology conference for half day.
- 4. B, D and E were from Peru and each of them attended Adolescent Medicine conference for half day.
- 5. C & F were from Brazil and attended Pediatric Cardiology conference for full day.
- 6. A, F and I attended Pediatric Gastroenterology conference for half day.
- 7. No two Pediatricians attended conferences on same subject combination.
- 8. J did not attend conference on Adolescent Medicine. H and I did not attend conference on Developmental-Behavioral Pediatrics.

3) Which of the following combination of Pediatrician – Country – Full day conference– Half day conference is definitely correct?

- ☐ D– Peru – Pediatric Cardiology– Adolescent Medicine
- ☐ E– Peru – Developmental-Behavioral Pediatrics– Adolescent Medicine
- ☒ J–Canada– Developmental-Behavioral Pediatrics– Pediatric Endocrinology
- ☐ G–Canada– Developmental-Behavioral Pediatrics– Pediatric Gastroenterology

Video Explanation:

Refer to the data below and answer the questions that follow.

The American Board of Pediatrics (ABM) organized five conferences on five subjects Adolescent Medicine, Pediatric Cardiology, Developmental-Behavioral Pediatrics, Pediatric Endocrinology and Pediatric Gastroenterology from 21<sup>st</sup> August to 25<sup>th</sup> August, 2019 in that order. Ten Pediatricians, A, B, C, D, E, F, G, H, I and J from four countries Canada, Argentina, Brazil and Peru attended the conferences. Each Pediatrician attended one conference for half day and another conference for full day.

Following information is known about the conferences:

- 1. 3 Pediatricians were from Canada and Peru each and 2 Pediatricians were from Brazil and Argentina each.
- 2. All 3 Pediatricians from Canada attended full day conference on Developmental-Behavioral Pediatrics.
- 3. No Pediatrician attended Pediatric Cardiology conference for half day.
- 4. B, D and E were from Peru and each of them attended Adolescent Medicine conference for half day.
- 5. C & F were from Brazil and attended Pediatric Cardiology conference for full day.
- 6. A, F and I attended Pediatric Gastroenterology conference for half day.
- 7. No two Pediatricians attended conferences on same subject combination.
- 8. J did not attend conference on Adolescent Medicine. H and I did not attend conference on Developmental-Behavioral Pediatrics.

Using points 1, 2, 4, 5, 6 & 8 it is clear that A, G and J are from Canada and the table can be partially filled as follows:

Pediatrician	Country	Full day	Half day
A	Canada	Developmental-Behavioral Pediatrics	Pediatric Gastroenterology
B	Peru		Adolescent Medicine
C	Brazil	Pediatric Cardiology	
D	Peru		Adolescent Medicine
E	Peru		Adolescent Medicine
F	Brazil	Pediatric Cardiology	Pediatric Gastroenterology
G	Canada	Developmental-Behavioral Pediatrics	
H	Argentina		
I	Argentina		Pediatric Gastroenterology
J	Canada	Developmental-Behavioral Pediatrics	

Using point 7: Conference of each subject was attended by 4 Pediatricians. Since no one attended Pediatric Cardiology conference for half day it can be concluded that 4 pediatricians attended conference on Pediatric Cardiology for full day. Since F attended full day conference on Pediatric Cardiology and half day conference on Pediatric Gastroenterology, I did not attend full day conference on Pediatric Cardiology, Thus, definitely H and one among B, D and E attended full day conference on Pediatric Cardiology.

G and J attended half day conference on Adolescent Medicine or Pediatric Endocrinology in any order. Using point 8, J attended half day conference on Pediatric Endocrinology and G attended half day conference on Adolescent Medicine. I definitely attended the Pediatric Endocrinology conference for full day. Since H did not attend conference on Developmental-Behavioral Pediatrics, the conference combination of Pediatric Cardiology and Developmental-Behavioral Pediatrics must have been attended by C. Thus, H definitely attended Pediatric Endocrinology conference for half day.

B, D and E attended full day conference on Pediatric Cardiology, Pediatric Endocrinology and Pediatric Endocrinology in any order.

Pediatrician	Country	Full day	Half day
A	Canada	Developmental-Behavioral Pediatrics	Pediatric Gastroenterology
B	Peru		Adolescent Medicine
C	Brazil	Pediatric Cardiology	Developmental-Behavioral Pediatrics
D	Peru		Adolescent Medicine
E	Peru		Adolescent Medicine
F	Brazil	Pediatric Cardiology	Pediatric Gastroenterology
G	Canada	Developmental-Behavioral Pediatrics	Adolescent Medicine
H	Argentina	Pediatric Cardiology	Pediatric Endocrinology
I	Argentina	Pediatric Endocrinology	Pediatric Gastroenterology
J	Canada	Developmental-Behavioral Pediatrics	Pediatric Endocrinology

Hence, [3].

Correct Answer: 

Time taken by you: 30 secs

Avg Time taken by all students: 280 secs

Your Attempt: Correct

% Students got it correct: 78 %

Refer to the data below and answer the questions that follow.

The American Board of Pediatrics (ABM) organized five conferences on five subjects Adolescent Medicine, Pediatric Cardiology, Developmental-BehavioralPediatrics,Pediatric Endocrinology and Pediatric Gastroenterology from 21<sup>st</sup> August to 25<sup>th</sup> August, 2019 in that order. Ten Pediatricians, A, B, C, D, E, F, G, H, I and J from four countries Canada, Argentina, Brazil and Peru attended the conferences. Each Pediatrician attended one conference for half day and another conference for full day.

Following information is known about the conferences:

- 1. 3 Pediatricians were from Canada and Peru each and 2 Pediatricians were from Brazil and Argentina each.
- 2. All 3 Pediatricians from Canada attended full day conference on Developmental-Behavioral Pediatrics.
- 3. No Pediatrician attended Pediatric Cardiology conference for half day.
- 4. B, D and E were from Peru and each of them attended Adolescent Medicine conference for half day.
- 5. C & F were from Brazil and attended Pediatric Cardiology conference for full day.
- 6. A, F and I attended Pediatric Gastroenterology conference for half day.
- 7. No two Pediatricians attended conferences on same subject combination.
- 8. J did not attend conference on Adolescent Medicine. H and I did not attend conference on Developmental-Behavioral Pediatrics.

4) How many Pediatricians did attend full day conference for Pediatric Endocrinology?

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4

Video Explanation:

▼

Refer to the data below and answer the questions that follow.

The American Board of Pediatrics (ABM) organized five conferences on five subjects Adolescent Medicine, Pediatric Cardiology, Developmental-Behavioral Pediatrics, Pediatric Endocrinology and Pediatric Gastroenterology from 21<sup>st</sup> August to 25<sup>th</sup> August, 2019 in that order. Ten Pediatricians, A, B, C, D, E, F, G, H, I and J from four countries Canada, Argentina, Brazil and Peru attended the conferences. Each Pediatrician attended one conference for half day and another conference for full day.

Following information is known about the conferences:

- 3 Pediatricians were from Canada and Peru each and 2 Pediatricians were from Brazil and Argentina each.
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- B, D and E were from Peru and each of them attended Adolescent Medicine conference for half day.
- C & F were from Brazil and attended Pediatric Cardiology conference for full day.
- A, F and I attended Pediatric Gastroenterology conference for half day.
- No two Pediatricians attended conferences on same subject combination.
- J did not attend conference on Adolescent Medicine. H and I did not attend conference on Developmental-Behavioral Pediatrics.

Using points 1, 2, 4, 5, 6 & 8 it is clear that A, G and J are from Canada and the table can be partially filled as follows:

Pediatrician	Country	Full day	Half day
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C	Brazil	Pediatric Cardiology	
D	Peru		Adolescent Medicine
E	Peru		Adolescent Medicine
F	Brazil	Pediatric Cardiology	Pediatric Gastroenterology
G	Canada	Developmental-Behavioral Pediatrics	
H	Argentina		
I	Argentina		Pediatric Gastroenterology
J	Canada	Developmental-Behavioral Pediatrics	

Using point 7: Conference of each subject was attended by 4 Pediatricians. Since no one attended Pediatric Cardiology conference for half day it can be concluded that 4 pediatricians attended conference on Pediatric Cardiology for full day. Since F attended full day conference on Pediatric Cardiology and half day conference on Pediatric Gastroenterology, I did not attend full day conference on Pediatric Cardiology, Thus, definitely H and one among B, D and E attended full day conference on Pediatric Cardiology.

G and J attended half day conference on Adolescent Medicine or Pediatric Endocrinology in any order. Using point 8, J attended half day conference on Pediatric Endocrinology and G attended half day conference on Adolescent Medicine. I definitely attended the Pediatric Endocrinology conference for full day. Since H did not attend conference on Developmental-Behavioral Pediatrics, the conference combination of Pediatric Cardiology and Developmental-Behavioral Pediatrics must have been attended by C. Thus, H definitely attended Pediatric Endocrinology conference for half day.

B, D and E attended full day conference on Pediatric Cardiology, Pediatric Endocrinology and Pediatric Endocrinology in any order.

Pediatrician	Country	Full day	Half day
A	Canada	Developmental-Behavioral Pediatrics	Pediatric Gastroenterology
B	Peru		Adolescent Medicine
C	Brazil	Pediatric Cardiology	Developmental-Behavioral Pediatrics
D	Peru		Adolescent Medicine
E	Peru		Adolescent Medicine
F	Brazil	Pediatric Cardiology	Pediatric Gastroenterology
G	Canada	Developmental-Behavioral Pediatrics	Adolescent Medicine
H	Argentina	Pediatric Cardiology	Pediatric Endocrinology
I	Argentina	Pediatric Endocrinology	Pediatric Gastroenterology
J	Canada	Developmental-Behavioral Pediatrics	Pediatric Endocrinology

Hence, [2].

Correct Answer: 

Time taken by you: 0 secs

Avg Time taken by all students: 59 secs

Your Attempt: Skipped

Refer to the data below and answer the questions that follow.

The American Board of Pediatrics (ABM) organized five conferences on five subjects Adolescent Medicine, Pediatric Cardiology, Developmental-BehavioralPediatrics,Pediatric Endocrinology and Pediatric Gastroenterology from 21<sup>st</sup> August to 25<sup>th</sup> August, 2019 in that order. Ten Pediatricians, A, B, C, D, E, F, G, H, I and J from four countries Canada, Argentina, Brazil and Peru attended the conferences. Each Pediatrician attended one conference for half day and another conference for full day.

Following information is known about the conferences:

Loading...

1. 3 Pediatricians were from Canada and Peru each and 2 Pediatricians were from Brazil and Argentina each.
2. All 3 Pediatricians from Canada attended full day conference on Developmental-Behavioral Pediatrics.
3. No Pediatrician attended Pediatric Cardiology conference for half day.
4. B, D and E were from Peru and each of them attended Adolescent Medicine conference for half day.
5. C & F were from Brazil and attended Pediatric Cardiology conference for full day.
6. A, F and I attended Pediatric Gastroenterology conference for half day.
7. No two Pediatricians attended conferences on same subject combination.
8. J did not attend conference on Adolescent Medicine. H and I did not attend conference on Developmental-Behavioral Pediatrics.

Refer to the data below and answer the questions that follow.

The **Royal Spanish Football** Federation organised the Copa del Rey in which teams of 7 clubs participated. The clubs are Sevilla, Real Sociedad, Sporting de Jijón, Valencia, Athletic Bilbao, Espanyol and Atlético Madrid. Each team played exactly once against each other in the tournament. The teams got 4 points for winning and no points for losing the match. If a match was a draw, each team got one point.

Further the following points are known:

- 1. Each team won at least one match.
- 2. Real Sociedad won four matches.
- 3. Sevilla drew a match against Valencia, Real Sociedad and Atheletic Bilbao.
- 4. Athletic Bilbao won the match against Valencia and Espanyol and lost the match against Real Sociedad and Sporting de Jijón.
- 5. Real Sociedad did not lose any match.

1) If the match between Valencia and Real Sociedad was a draw then for how many matches the result is not known?

Enter your response (as an integer) using the virtual keyboard in the box provided below.

10

Video Explanation: 

▼

Explanation: 

▼

Let us first denote the team names with short forms :Sevilla – S, Real Sociedad – RS, Sporting de Jijón – SDJ, Valencia – V, Athletic Bilbao – AB, Espanyol – E, Atlético Madrid – AM. From the given information, following partially filled table can be drawn:

	S	RS	SDJ	V	AB	E	AM	Total Points
S		1		1	1			
RS	1				4			18
SDJ					4			
V	1				0			
AB	1	0	0	4		4		
E					0			
AM								

Using the additional information given in the question.

	S	RS	SDJ	V	AB	E	AM	Total Points
S		1		1	1			
RS	1		4	1	4	4	4	18
SDJ		0			4			
V	1	1			0			
AB	1	0	0	4		4		
E		0			0			
AM		0						

The results of 10 matches are still not known.

Therefore the required answer is 10.

Correct Answer: 

▼

Time taken by you: 698 secs

Avg Time taken by all students: 210 secs

Your Attempt: Correct

% Students got it correct: 33 %

2) What could be the minimum difference between the total points scored by Sevilla and Sporting de Jijón?

Enter your response (as an integer) using the virtual keyboard in

Refer to the data below and answer the questions that follow.

The **Royal Spanish Football** Federation organised the Copa del Rey in which teams of 7 clubs participated. The clubs are Sevilla, Real Sociedad, Sporting de Jijón, Valencia, Athletic Bilbao, Espanyol and Atlético Madrid. Each team played exactly once against each other in the tournament. The teams got 4 points for winning and no points for losing the match. If a match was a draw, each team got one point.

Further the following points are known:

- 1. Each team won at least one match.
- 2. Real Sociedad won four matches.
- 3. Sevilla drew a match against Valencia, Real Sociedad and Atheletic Bilbao.
- 4. Athletic Bilbao won the match against Valencia and Espanyol and lost the match against Real Sociedad and Sporting de Jijón.
- 5. Real Sociedad did not lose any match.

1

Video Explanation: ▼

Explanation: ▼

Let us first denote the team names with shortforms : Sevilla – S, Real Sociedad – RS, Sporting de Jijón – SDJ, Valencia – V, Athletic Bilbao – AB, Espanyol – E, Atlético Madrid – AM. From the given information, following partially filled table can be drawn:

	S	RS	SDJ	V	AB	E	AM	Total Points
S		1		1	1			
RS	1				4			18
SDJ					4			
V	1				0			
AB	1	0	0	4		4		
E					0			
AM								

To get the minimum difference between the total points of S and SDJ, let us try if it is possible that both the team got the same score. For this, match between S and SDJ must be a draw. Without loss of generality, assume that S won against E. In this case, the results of the matches played by S and SDJ could be following:

	S	RS	SDJ	V	AB	E	AM	Total Points
S		1	1	1	1	4	0	8
RS	1		1		4			18
SDJ	1	1		0	4	1	1	8
V	1		4		0			
AB	1	0	0	4		4		
E	0		1		0			
AM	4		1					

Now let us see, whether this table can be filled satisfying all the given conditions. Here, we can see that RS’s matches with S and SDJ were draw thus RS won all the other four matches.

Since each team won at least one match, thus E might have won against one among V and AM. AM might have won against anyone among V, AB and AM. So this case is valid.

Thus, the minimum difference between the total score of S and SDJ = 0

Hence, the answer is 0.

Correct Answer: ▼

Time taken by you: 88 secs

Avg Time taken by all students: 47 secs

Your Attempt: Wrong

% Students got it correct: 32 %



Refer to the data below and answer the questions that follow.

The **Royal Spanish Football** Federation organised the Copa del Rey in which teams of 7 clubs participated. The clubs are Sevilla, Real Sociedad, Sporting de Jijón, Valencia, Athletic Bilbao, Espanyol and Atlético Madrid. Each team played exactly once against each other in the tournament. The teams got 4 points for winning and no points for losing the match. If a match was a draw, each team got one point.

Further the following points are known:

- 1. Each team won at least one match.
- 2. Real Sociedad won four matches.
- 3. Sevilla drew a match against Valencia, Real Sociedad and Atheletic Bilbao.
- 4. Athletic Bilbao won the match against Valencia and Espanyol and lost the match against Real Sociedad and Sporting de Jijón.
- 5. Real Sociedad did not lose any match.

Espanyol got maximum possible points for the remaining matches and Atlético Madrid won only one match, which was against Valencia and lost all other matches.

Who won the match between Sevilla and Sporting de Jijón?

- ☐ Sporting de Jijón
- ☒ Sevilla ❌
- ☐ The match was a draw
- ☐ Cannot be determined

Video Explanation:

Explanation:

Let us first denote the team names with shortforms : Sevilla – S, Real Sociedad – RS, Sporting de Jijón – SDJ, Valencia – V, Athletic Bilbao – AB, Espanyol – E, Atlético Madrid – AM. From the given information, following partially filled table can be drawn:

	S	RS	SDJ	V	AB	E	AM	Total Points
S		1		1	1			
RS	1				4			18
SDJ					4			
V	1				0			
AB	1	0	0	4		4		
E					0			
AM								

To get the maximum possible points, E must have won its matches against S, SDJ, V and AM and the match between E and RS must be a draw.

The table can be filled as follows:

	S	RS	SDJ	V	AB	E	AM	Total Points
S		1		1	1	0	4	
RS	1		4	4	4	1	4	18
SDJ		0		0	4	0	4	
V	1	0	4		0	0	0	5
AB	1	0	0	4		4	4	13
E	4	1	4	4	0		4	17
AM	0	0	0	4	0	0		4

The result of the match between S and SDJ is not known.

Hence, [4].

Correct Answer:

Time taken by you: 124 secs

Avg Time taken by all students: 176 secs

Your Attempt: Wrong

% Students got it correct: 75 %

Refer to the data below and answer the questions that follow.

The **Royal Spanish Football** Federation organised the Copa del Rey in which teams of 7 clubs participated. The clubs are Sevilla, Real Sociedad, Sporting de Jijón, Valencia, Athletic Bilbao, Espanyol and Atlético Madrid. Each team played exactly once against each other in the tournament. The teams got 4 points for winning and no points for losing the match. If a match was a draw, each team got one point.

Further the following points are known:

- 1. Each team won at least one match.
- 2. Real Sociedad won four matches.
- 3. Sevilla drew a match against Valencia, Real Sociedad and Atheletic Bilbao.
- 4. Athletic Bilbao won the match against Valencia and Espanyol and lost the match against Real Sociedad and Sporting de Jijón.
- 5. Real Sociedad did not lose any match.

4) Additional information for Q 28:

Espanyol got maximum possible points for the remaining matches and Atlético Madrid won only one match, which was against Valencia and lost all other matches.

Which team got the second lowest points among the seven teams?

- ☐ Atlético Madrid
- ☒ Valencia✔
- ☐ Sevilla
- ☐ Sporting de Jijón

Video Explanation:

Explanation:

Let us first denote the team names with shortforms : Sevilla – S, Real Sociedad – RS, Sporting de Jijón – SDJ, Valencia – V, Athletic Bilbao – AB, Espanyol – E, Atlético Madrid – AM. From the given information, following partially filled table can be drawn:

	S	RS	SDJ	V	AB	E	AM	Total Points
S		1		1	1			
RS	1				4			18
SDJ					4			
V	1				0			
AB	1	0	0	4		4		
E					0			
AM								

To get the maximum possible points, E must have won its matches against S, SDJ, V and AM and the match between E and RS must be a draw.

The table can be filled as follows:

	S	RS	SDJ	V	AB	E	AM	Total Points
S		1		1	1	0	4	
RS	1		4	4	4	1	4	18
SDJ		0		0	4	0	4	
V	1	0	4		0	0	0	5
AB	1	0	0	4		4	4	13
E	4	1	4	4	0		4	17
AM	0	0	0	4	0	0		4

The 2<sup>nd</sup> lowest points were 5 scored by V.  
Hence, [2].

Correct Answer:

Time taken by you: 130 secs

Avg Time taken by all students: 93 secs

Refer to the data below and answer the questions that follow.

The **Royal Spanish Football** Federation organised the Copa del Rey in which teams of 7 clubs participated. The clubs are Sevilla, Real Sociedad, Sporting de Jijón, Valencia, Athletic Bilbao, Espanyol and Atlético Madrid. Each team played exactly once against each other in the tournament. The teams got 4 points for winning and no points for losing the match. If a match was a draw, each team got one point.

Further the following points are known:

1. Each team won at least one match.
2. Real Sociedad won four matches.
3. Sevilla drew a match against Valencia, Real Sociedad and Atheletic Bilbao.
4. Athletic Bilbao won the match against Valencia and Espanyol and lost the match against Real Sociedad and Sporting de Jijón.
5. Real Sociedad did not lose any match.

% Students got it correct: **69** %

Loading...

Refer to the data below and answer the questions that follow.

Turkey is 2 hours ahead of Scotland and 4 hours behind India. X leaves Scotland at 6:00 PM on Friday and reaches Turkey the next day. After waiting there for 3 hours, he leaves at 5:00 AM and reaches India at 5:00 PM on his return journey, he takes the same route as before, but halts at Turkey for 1 hour less than his previous halt there. He then proceeds to Scotland.

1) If X starts from India on the same day at midnight, then at what time would he reach back to Scotland? (Scotland time)

- ☐ 8:00 AM
- ☐ 10:00 AM
- ☐ 11:00 AM
- ☐ None of these

Video Explanation: 

▼

Explanation: 

▼

The time in different countries during the travel can be listed as follows:

	Scotland	Turkey	India
Started from Scotland	6:00 PM	8:00 PM	Midnight 12
Reached Turkey	Midnight 12	2:00 AM	6:00 AM
Started from Turkey	3:00 AM	5:00 AM	9:00 AM
Reached India	11:00 AM	1:00 PM	5:00 PM

Number of hours travelled from Scotland to Turkey = Midnight 12 – 6:00PM = 6 hours.  
Number of hours travelled from Turkey to India = 1:00 PM– 5:00 AM = 8 hours.

Total travelling time = 6 + 8 = 14  
Total halting time = 2 hours  
Total time taken to reach Scotland = 14 + 2 = 16 hours. Indian time = 12 midnight + 16 hours = 4:00 PM  
Scotland time = 4:00 PM – 6 hours = 10:00 AM  
Hence, [2].

Correct Answer: 

▼

Time taken by you: 430 secs

Avg Time taken by all students: 344 secs

Your Attempt: Skipped

% Students got it correct: 56 %

2) If X halts in India for 12 hours, then after how many hours did X reach back to Scotland (from the time he started from Scotland)?

Enter your response (as an integer) using the virtual keyboard in the box provided below.

104

Refer to the data below and answer the questions that follow.

Turkey is 2 hours ahead of Scotland and 4 hours behind India. X leaves Scotland at 6:00 PM on Friday and reaches Turkey the next day. After waiting there for 3 hours, he leaves at 5:00 AM and reaches India at 5:00 PM on his return journey, he takes the same route as before, but halts at Turkey for 1 hour less than his previous halt there. He then proceeds to Scotland.

Explanation: 

The time in different countries during the travel can be listed as follows:

	Scotland	Turkey	India
Started from Scotland	6:00 PM	8:00 PM	Midnight 12
Reached Turkey	Midnight 12	2:00 AM	6:00 AM
Started from Turkey	3:00 AM	5:00 AM	9:00 AM
Reached India	11:00 AM	1:00 PM	5:00 PM

Number of hours travelled from Scotland to Turkey = Midnight 12 – 6:00PM = 6 hours.  
Number of hours travelled from Turkey to India =1:00 PM – 5:00 AM = 8 hours.

Total travelling hour both ways = 2(6 + 8) = 28 hours  
Total number of halting hours = 3 (Turkey) + 12 (India) + 2 (Turkey) = 17 hours  
So X reach back to Scotland after 28 + 17 = 45 hours  
Therefore, the required answer is 45.


Correct Answer: 

Time taken by you: **119 secs**

Avg Time taken by all students: **53 secs**

Your Attempt: **Wrong**

% Students got it correct: **39 %**

3) Y leaves Scotland at 10:00 PM on Friday and reaches Turkey  on Saturday. Then he proceeds to India after a halt of ‘t’ hours. He reaches India next day at 11:00 PM. For how many hours did he halt in Turkey?

Enter your response (as an integer) using the virtual keyboard in the box provided below.

5

Video Explanation: 

Refer to the data below and answer the questions that follow.

Turkey is 2 hours ahead of Scotland and 4 hours behind India. X leaves Scotland at 6:00 PM on Friday and reaches Turkey the next day. After waiting there for 3 hours, he leaves at 5:00 AM and reaches India at 5:00 PM on his return journey, he takes the same route as before, but halts at Turkey for 1 hour less than his previous halt there. He then proceeds to Scotland.

The time in different countries during the travel can be listed as follows:

	Scotland	Turkey	India
Started from Scotland	6:00 PM	8:00 PM	Midnight 12
Reached Turkey	Midnight 12	2:00 AM	6:00 AM
Started from Turkey	3:00 AM	5:00 AM	9:00 AM
Reached India	11:00 AM	1:00 PM	5:00 PM

Number of hours travelled from Scotland to Turkey = Midnight 12 – 6:00 PM = 6 hours.  
Number of hours travelled from Turkey to India =1:00 PM – 5:00 AM = 8 hours.

When it is 11:00 PM in India, it is 5:00 PM in Scotland. Total time taken = 19 hours. Total travelling time = 14 hours. So halt time in Turkey = 19 – 14 = 5 hours.  
Therefore, the required answer is 5.

Correct Answer: ▼

Time taken by you: 69 secs

Avg Time taken by all students: 60 secs

Your Attempt: Correct

% Students got it correct: 48 %

4) Z leaves Scotland at 6:00 AM on Friday and reaches Turkey the same day. Then he proceeds to India after a halt of 10 hours. At what time does he reach India? (Indian time)

- ☐ At noon on Saturday
- ☐ At 10:00 AM on Saturday
- ☐ At 9:00 AM on Saturday
- ☐ At 6:00 AM on Saturday

Video Explanation: ▼

Refer to the data below and answer the questions that follow.

Turkey is 2 hours ahead of Scotland and 4 hours behind India. X leaves Scotland at 6:00 PM on Friday and reaches Turkey the next day. After waiting there for 3 hours, he leaves at 5:00 AM and reaches India at 5:00 PM on his return journey, he takes the same route as before, but halts at Turkey for 1 hour less than his previous halt there. He then proceeds to Scotland.

The time in different countries during the travel can be listed as follows:

	Scotland	Turkey	India
Started from Scotland	6:00 PM	8:00 PM	Midnight 12
Reached Turkey	Midnight 12	2:00 AM	6:00 AM
Started from Turkey	3:00 AM	5:00 AM	9:00 AM
Reached India	11:00 AM	1:00 PM	5:00 PM

Number of hours travelled from Scotland to Turkey = Midnight 2 – 6:00 PM = 6 hours.  
Number of hours travelled from Turkey to India = 1:00 PM – 5:00 AM = 8 hours.

Z reaches Turkey after 6 hours, i.e., noon in Scotland and 2:00 AM in Turkey. After a halt of 10 hours, he starts from Turkey at midnight. He reaches India after 8 hours. i.e., 8:00 AM in Turkey and noon in India.  
Hence, [1].

Correct Answer:

▼

Time taken by you: **0 secs**

Avg Time taken by all students: **105 secs**

Your Attempt: **Skipped**

% Students got it correct: **78 %**

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