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

Umbassador and Piat are two car models available in the market. Umbassador was launched in the year 2007, while Piat was launched in 2014. For both these models, all the cars sold were initially used as private cars. 30% of the cars sold in a particular year are converted from a private vehicle to a taxi exactly two years later. It is known that 18,000 Umbassadors were converted into taxis in 2014. The following table shows the number (in thousands) of Umbassador and Piat cars in operation as private vehicles from 2012 to 2017, as at the end of the year.

	Umbassador	Piat
2012	215	
2013	270	
2014	312	80
2015	351	190
2016	365	244
2017	365	259

1) What is the number of Umbassador cars sold in 2014?

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

Video Explanation: ⌄

Explanation: ⌄

Some of the values can be derived as under.

- Since we know that 30% of the cars are converted after two years and 18,000 Umbassadors were converted in 2014. So, number of Umbassadors sold in 2012 is $\frac{18000}{30} \times 100 = 60{,}000$.
- Before conversion, number of Umbassadors in 2014, $(312 + 18) \times 1000 = 3{,}30{,}000$.

  Thus, number of Umbassadors sold in 2014 $= (330 - 270) \times 1000 = 60{,}000$

We can have the following table. (All figures in thousands.)

Year	2012	2013	2014	2015	2016	2017
Umbassador						
In Private Use	215	270	312	351	365	365
Converted			18		60 × 30% = 18	
Sold	18/30% = 60		(312 + 18) − 270 = 60		(365 + 18) − 351 = 32	
Piat						
In Private Use	0	0	80	190	244	259
Converted					80 × 30% = 24	110 × 30% = 33
Sold			80	190 − 80 = 110	(244 + 24) − 190 = 78	(259 + 33) − 244 = 48

The number of Umbassadors sold in 2014 is (330 – 270) × 1000 = 60,000

Therefore, the required answer is 60000.

Correct Answer: ⌄

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

Umbassador and Piat are two car models available in the market. Umbassador was launched in the year 2007, while Piat was launched in 2014. For both these models, all the cars sold were initially used as private cars. 30% of the cars sold in a particular year are converted from a private vehicle to a taxi exactly two years later. It is known that 18,000 Umbassadors were converted into taxis in 2014. The following table shows the number (in thousands) of Umbassador and Piat cars in operation as private vehicles from 2012 to 2017, as at the end of the year.

	Umbassador	Piat
2012	215	
2013	270	
2014	312	80
2015	351	190
2016	365	244
2017	365	259

2) What is the difference between the number of Umbassadors and Piats sold in 2016?

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

121

Video Explanation: ⌄

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

Umbassador and Piat are two car models available in the market. Umbassador was launched in the year 2007, while Piat was launched in 2014. For both these models, all the cars sold were initially used as private cars. 30% of the cars sold in a particular year are converted from a private vehicle to a taxi exactly two years later. It is known that 18,000 Umbassadors were converted into taxis in 2014. The following table shows the number (in thousands) of Umbassador and Piat cars in operation as private vehicles from 2012 to 2017, as at the end of the year.

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2013	270	
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- Before conversion, number of Umbassadors in 2014, $(312 + 18) \times 1000 = 3{,}30{,}000$.

  Thus, number of Umbassadors sold in 2014 $= (330 - 270) \times 1000 = 60{,}000$

We can have the following table. (All figures in thousands.)

Year	2012	2013	2014	2015	2016	2017
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In Private Use	215	270	312	351	365	365
Converted			18		60 × 30% = 18	
Sold	18/30% = 60		(312 + 18) − 270 = 60		(365 + 18) − 351 = 32	
Piat						
In Private Use	0	0	80	190	244	259
Converted					80 × 30% = 24	110 × 30% = 33
Sold			80	190 − 80 = 110	(244 + 24) − 190 = 78	(259 + 33) − 244 = 48

Difference between the number of Umbassadors and Piats sold in 2016 = (78 – 32) × 1000 = 46000

Therefore, the required answer is 46000.

Correct Answer: ⌄

Time taken by you: **254 secs**

Avg Time taken by all students: **16 secs**

Your Attempt: **Wrong**

% Students got it correct: **9 %**

3) If 70000 Umbassadors were sold in 2013, what is the difference between the number of Umbassadors and Piats converted into taxis in 2017?

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

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

Umbassador and Piat are two car models available in the market. Umbassador was launched in the year 2007, while Piat was launched in 2014. For both these models, all the cars sold were initially used as private cars. 30% of the cars sold in a particular year are converted from a private vehicle to a taxi exactly two years later. It is known that 18,000 Umbassadors were converted into taxis in 2014. The following table shows the number (in thousands) of Umbassador and Piat cars in operation as private vehicles from 2012 to 2017, as at the end of the year.

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Video Explanation:

Explanation:

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- Before conversion, number of Umbassadors in 2014, $(312 + 18) \times 1000 = 3{,}30{,}000$.

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If 70000 Umbassadors were sold in 2013, then:

- Umbassadors converted to taxis in 2015 = 21,000
- Before conversion, number of Umbassadors in 2015, (351 + 21) × 1000 = 3,72,000.

Thus, number of Umbassadors sold in 2015 = (372 – 312) × 1000 = 60,000

- Umbassadors converted to taxis in 2017 = 18,000

Since Piats converted in 2017 are 33,000, the difference is 15,000.

Therefore, the required answer is 15000.

Correct Answer:

Avg Time taken by all

Change Section here ▾

Your Attempt: **Skipped**

% Students got it correct: **15 %**

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

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2017	365	259

4)

How many Piat cars were converted into taxis by the end of 2017?

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

Video Explanation:

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Converted					80 × 30% = 24	110 × 30% = 33
Sold			80	190 − 80 = 110	(244 + 24) − 190 = 78	(259 + 33) − 244 = 48

Piats converted by the end of 2017 are (24 + 33) × 1000 = 57,000.

Therefore, the required answer is 57000.

Correct Answer: ⌄

Time taken by you: **0 secs**

Avg Time taken by all students: **35 secs**

Your Attempt: **Skipped**

% Students got it correct: **25 %**

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

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2016	365	244
2017	365	259

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

Drona Boxing & Self Defense Academy has all its students enrolled in at least one of the 3 self-defense techniques - Karate, Kickboxing and Taekwondo. Three students who have opted for exactly one from each of the given three techniques were asked about the academy statistics. Their responses were as follows,

Karna: The total number of students in our academy is less than 50. The number of students opting for both Kickboxing and Taekwondo but not Karate, both Karate and Kickboxing but not Taekwondo and all the three techniques forms a natural number geometric progression (GP) with common ratio 2, not necessarily when taken in that order. Only the technique that I chose had the highest number of student enrollments.

Abhimanyu: The number of students opting for only Taekwondo is twice the number of students opting for both Karate and Taekwondo but not Kickboxing. The number of students opting for only Kickboxing is equal to the sum of the students opting for only Karate and only Taekwondo.

Arjuna: The number of students opting for both Karate and Kickboxing is twice the number of students opting for both Taekwondo and Kickboxing. The technique that I opted for was the only one that had the lowest number of enrollments. Also, the number of students opting for both Karate and Taekwondo but not Kickboxing is 5 more than the number of students opting for both Kickboxing and Taekwondo but not Karate.

1) Which technique did Arjuna opt for?

- Karate
- Taekwondo
- Kickboxing
- Cannot be determined

Video Explanation:

Explanation:

Let us assume that the number of students opting for both Kickboxing and Taekwondo but not Karate and only Karate be x and y respectively. Thus, as per Arjuna's and Abhimanyu's statements,

The number of students opting for both Karate and Taekwondo but not Kickboxing = (x + 5)

The number of students opting for only Taekwondo = (2x + 10)

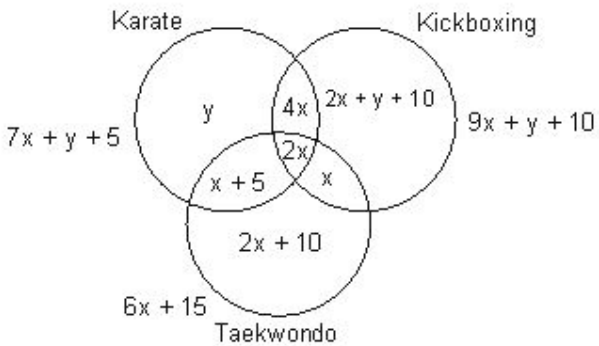
The number of students opting for only Kickboxing = (2x + y + 10)

Also, let the number of students opting for both Kickboxing and Karate but not Taekwondo be 'A' and the number of students opting all the three techniques be 'B'.

Now (A + B) = 2(B + x) ⇒ A = B + 2x ⇒ A > 2x

As per Karna's response, A, B and x forms GP with the common ratio = 2 ⇒ B = 2x and A = 4x

The Venn diagram can be drawn as follows:



The total number of students is less than 50.

∴ 12x + 2y + 25 < 50

∴ 12x + 2y < 25

If x = 1, y = 0, 1, 2, 3, 4, 5 and 6.

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

Drona Boxing & Self Defense Academy has all its students enrolled in at least one of the 3 self-defense techniques - Karate, Kickboxing and Taekwondo. Three students who have opted for exactly one from each of the given three techniques were asked about the academy statistics. Their responses were as follows,

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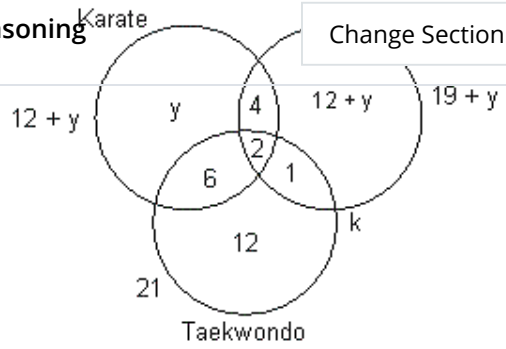
Arjuna: The number of students opting for both Karate and Kickboxing is twice the number of students opting for both Taekwondo and Kickboxing. The technique that I opted for was the only one that had the lowest number of enrollments. Also, the number of students opting for both Karate and Taekwondo but not Kickboxing is 5 more than the number of students opting for both Kickboxing and Taekwondo but not Karate.



Here,

If y = 0, ⇒ Karate = 12, Kickboxing = 19, Taekwondo = 21

Karate had the lowest number of enrollments. By Arjuna's statement, he must have opted for Karate. So this case is not valid.

If y = 1 ⇒ Karate = 13, Kickboxing = 20, Taekwondo = 21

y = 2 ⇒ Karate = 14, Kickboxing = 21, Taekwondo = 21

This violates the last statement made by Karna.

y = 3 ⇒ Karate = 15, kickboxing = 22, Taekwondo = 21

y = 4 ⇒ Karate = 16, Kickboxing = 23, Taekwondo = 21,

y = 5 ⇒ Karate = 17, Kickboxing = 24, Taekwondo = 21,

y = 6 ⇒ Karate = 18, Kickboxing = 25, Taekwondo = 21,

Thus, if x = 1, y = 1 or 3 or 4 or 5 or 6.

If x = 2 ⇒ 12x + 2y < 25 ⇒ 24 + 2y < 25

$y < \frac{1}{2}$. The only possible value of y is 0.

⇒ Karate = 19, Kickboxing = 28, Taekwondo = 27

Karate had the lowest number of enrollments. By Arjuna's statement, he must have opted for Karate. So this case is not valid.

So, x = 1.

Arjuna opted for the technique that had the lowest number of students. For all the values of y, the number of students enrolled in Karate will be the minimum possible. Hence, [1].

Correct Answer: ⌄

Time taken by you: **0 secs**

Avg Time taken by all students: **291 secs**

Your Attempt: **Skipped**

% Students got it correct: **46 %**

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

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2) Which technique did Karna opt for?

- Karate
- Taekwondo
- Kickboxing
- Cannot be determined

Video Explanation:

Explanation:

Let us assume that the number of students opting for both Kickboxing and Taekwondo but not Karate and only Karate be x and y respectively. Thus, as per Arjuna's and Abhimanyu's statements,

The number of students opting for both Karate and Taekwondo but not Kickboxing = (x + 5)

The number of students opting for only Taekwondo = (2x + 10)

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Also, let the number of students opting for both Kickboxing and Karate but not Taekwondo be 'A' and the number of students opting all the three techniques be 'B'.

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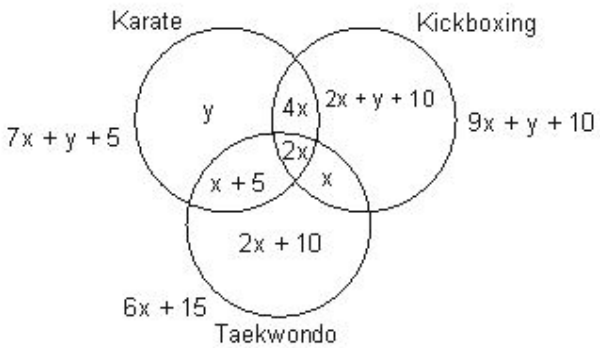

The total number of students is less than 50.

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If x = 1, y = 0, 1, 2, 3, 4, 5 and 6.

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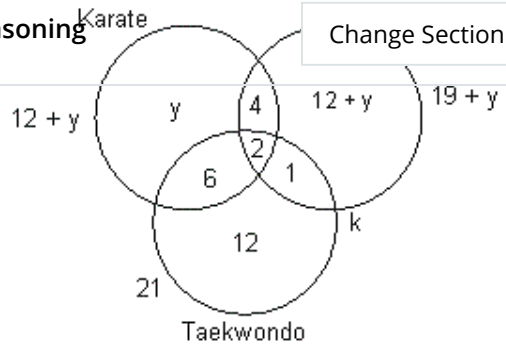

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Thus, if x = 1, y = 1 or 3 or 4 or 5 or 6.

If x = 2 ⇒ 12x + 2y < 25 ⇒ 24 + 2y < 25

$y < \frac{1}{2}$. The only possible value of y is 0.

⇒ Karate = 19, Kickboxing = 28, Taekwondo = 27

Karate had the lowest number of enrollments. By Arjuna's statement, he must have opted for Karate. So this case is not valid.

So, x = 1.

When y = 1, the number of students in Taekwondo > Kickboxing > Karate.

When y = 2, the number of students in Taekwondo = Kickboxing > Karate. This case is ruled out.

When y > 2, the number of students in Kickboxing > Taekwondo > Karate.

When y = 1, the number of students in Taekwondo > Kickboxing > Karate.

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When y > 2, the number of students in Kickboxing > Taekwondo > Karate.

Karna opted for the technique having the highest number of enrollments.

This cannot be determined. Hence, [4]

Change Section here

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Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **12 secs**

Your Attempt: **Skipped**

% Students got it correct: **16 %**

3) How many different values for the total number of students in the academy exist?

- 5
- 6
- 7
- 8

Video Explanation:

Explanation:

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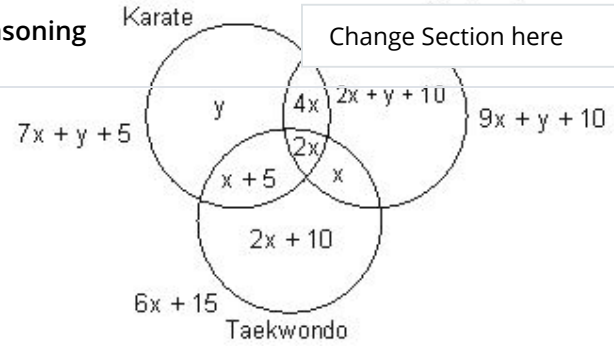
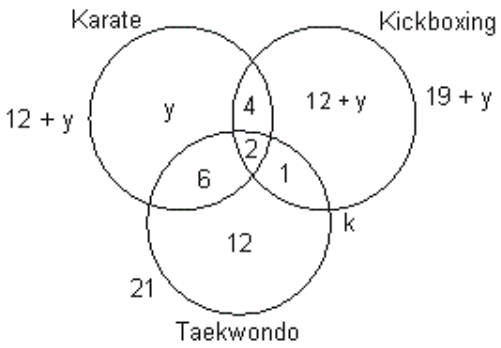


The total number of students is less than 50.

$\therefore 12x + 2y + 25 < 50$

$\therefore 12x + 2y < 25$

If x = 1, y = 0, 1, 2, 3, 4, 5 and 6.



Here,

If y = 0, ⇒ Karate = 12, Kickboxing = 19, Taekwondo = 21

Karate had the lowest number of enrollments. By Arjuna's statement, he must have opted for Karate. So this case is not valid.

If y = 1 ⇒ Karate = 13, Kickboxing = 20, Taekwondo = 21

y = 2 ⇒ Karate = 14, Kickboxing = 21, Taekwondo = 21

This violates the last statement made by Karna.

y = 3 ⇒ Karate = 15, kickboxing = 22, Taekwondo = 21

y = 4 ⇒ Karate = 16, Kickboxing = 23, Taekwondo = 21,

y = 5 ⇒ Karate = 17, Kickboxing = 24, Taekwondo = 21,

y = 6 ⇒ Karate = 18, Kickboxing = 25, Taekwondo = 21,

Thus, if x = 1, y = 1 or 3 or 4 or 5 or 6.

If x = 2 ⇒ 12x + 2y < 25 ⇒ 24 + 2y < 25

$y < \frac{1}{2}$. The only possible value of y is 0.

⇒ Karate = 19, Kickboxing = 28, Taekwondo = 27

Karate had the lowest number of enrollments. By Arjuna's statement, he must have opted for Karate. So this case is not valid.

So, x = 1.

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

Drona Boxing & Self Defense Academy has all its students enrolled in at least one of the 3 self-defense techniques - Karate, Kickboxing and Taekwondo. Three students who have opted for exactly one from each of the given three techniques were asked about the academy statistics. Their responses were as follows,

Karna: The total number of students in our academy is less than 50. The number of students opting for both Kickboxing and Taekwondo but not Karate, both Karate and Kickboxing but not Taekwondo and all the three techniques forms a natural number geometric progression (GP) with common ratio 2, not necessarily when taken in that order. Only the technique that I chose had the highest number of student enrollments.

Abhimanyu: The number of students opting for only Taekwondo is twice the number of students opting for both Karate and Taekwondo but not Kickboxing. The number of students opting for only Kickboxing is equal to the sum of the students opting for only Karate and only Taekwondo.

Arjuna: The number of students opting for both Karate and Kickboxing is twice the number of students opting for both Taekwondo and Kickboxing. The technique that I opted for was the only one that had the lowest number of enrollments. Also, the number of students opting for both Karate and Taekwondo but not Kickboxing is 5 more than the number of students opting for both Kickboxing and Taekwondo but not Karate.

The total number of students in the academy = (37 + 2y).

We know that for x = 1, y = 1 or 3 or 4 or 5 or 6.

The different values that are possible are 39, 43, 45, 47 and 49.

Thus, 5 distinct values exist.

Hence, [1].

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **22 secs**

Your Attempt: **Skipped**

% Students got it correct: **19 %**

4) If 16 students opt for Karate, how many students opt for only Kickboxing?

- 8
- 12
- 16
- 23

Video Explanation:

Explanation:

Let us assume that the number of students opting for both Kickboxing and Taekwondo but not Karate and only Karate be x and y respectively. Thus, as per Arjuna's and Abhimanyu's statements,

The number of students opting for both Karate and Taekwondo but not Kickboxing = (x + 5)

The number of students opting for only Taekwondo = (2x + 10)

The number of students opting for only Kickboxing = (2x + y + 10)

Also, let the number of students opting for both Kickboxing and Karate but not Taekwondo be 'A' and the number of students opting all the three techniques be 'B'.

Now (A + B) = 2(B + x) $\Rightarrow$ A = B + 2x $\Rightarrow$ A > 2x

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

Drona Boxing & Self Defense Academy has all its students enrolled in at least one of the 3 self-defense techniques - Karate, Kickboxing and Taekwondo. Three students who have opted for exactly one from each of the given three techniques were asked about the academy statistics. Their responses were as follows,

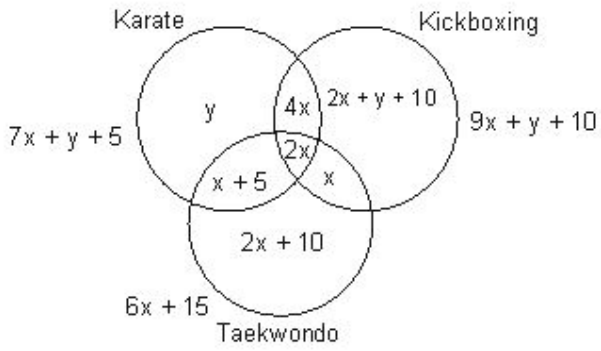
Karna: The total number of students in our academy is less than 50. The number of students opting for both Kickboxing and Taekwondo but not Karate, both Karate and Kickboxing but not Taekwondo and all the three techniques forms a natural number geometric progression (GP) with common ratio 2, not necessarily when taken in that order. Only the technique that I chose had the highest number of student enrollments.

Abhimanyu: The number of students opting for only Taekwondo is twice the number of students opting for both Karate and Taekwondo but not Kickboxing. The number of students opting for only Kickboxing is equal to the sum of the students opting for only Karate and only Taekwondo.

Arjuna: The number of students opting for both Karate and Kickboxing is twice the number of students opting for both Taekwondo and Kickboxing. The technique that I opted for was the only one that had the lowest number of enrollments. Also, the number of students opting for both Karate and Taekwondo but not Kickboxing is 5 more than the number of students opting for both Kickboxing and Taekwondo but not Karate.

As per Karna's response, A, B and x forms GP with the common ratio = 2 ⇒ B =

The Venn diagram can be drawn as follows:

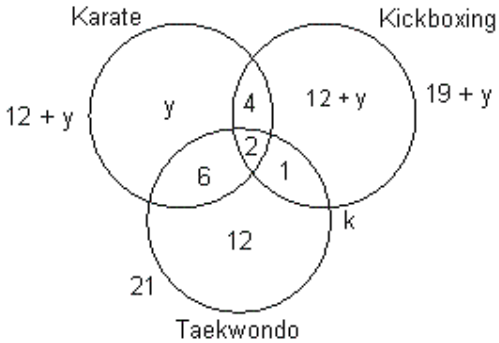


The total number of students is less than 50.

∴ 12x + 2y + 25 < 50

∴ 12x + 2y < 25

If x = 1, y = 0, 1, 2, 3, 4, 5 and 6.



Here,

If y = 0, ⇒ Karate = 12, Kickboxing = 19, Taekwondo = 21

Karate had the lowest number of enrollments. By Arjuna's statement, he must have opted for Karate. So this case is not valid.

If y = 1 ⇒ Karate = 13, Kickboxing = 20, Taekwondo = 21

y = 2 ⇒ Karate = 14, Kickboxing = 21, Taekwondo = 21

This violates the last statement made by Karna.

y = 3 ⇒ Karate = 15, kickboxing = 22, Taekwondo = 21

y = 4 ⇒ Karate = 16, Kickboxing = 23, Taekwondo = 21,

y = 5 ⇒ Karate = 17, Kickboxing = 24, Taekwondo = 21,

y = 6 ⇒ Karate = 18, Kickboxing = 25, Taekwondo = 21,

Thus, if x = 1, y = 1 or 3 or 4 or 5 or 6.

If x = 2 ⇒ 12x + 2y < 25 ⇒ 24 + 2y < 25

$y < \frac{1}{2}$. The only possible value of y is 0.

⇒ Karate = 19, Kickboxing = 28, Taekwondo = 27

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

Drona Boxing & Self Defense Academy has all its students enrolled in at least one of the 3 self-defense techniques - Karate, Kickboxing and Taekwondo. Three students who have opted for exactly one from each of the given three techniques were asked about the academy statistics. Their responses were as follows,

Karna: The total number of students in our academy is less than 50. The number of students opting for both Kickboxing and Taekwondo but not Karate, both Karate and Kickboxing but not Taekwondo and all the three techniques forms a natural number geometric progression (GP) with common ratio 2, not necessarily when taken in that order. Only the technique that I chose had the highest number of student enrollments.

Abhimanyu: The number of students opting for only Taekwondo is twice the number of students opting for both Karate and Taekwondo but not Kickboxing. The number of students opting for only Kickboxing is equal to the sum of the students opting for only Karate and only Taekwondo.

Arjuna: The number of students opting for both Karate and Kickboxing is twice the number of students opting for both Taekwondo and Kickboxing. The technique that I opted for was the only one that had the lowest number of enrollments. Also, the number of students opting for both Karate and Taekwondo but not Kickboxing is 5 more than the number of students opting for both Kickboxing and Taekwondo but not Karate.

Karate had the lowest number of enrollments. By Arjuna's statement, he m... this case is not valid.

So, x = 1.

If 16 students opt for karate, y = 4.

Thus, the number of students opting for only Kickboxing is 12 + 4 = 16. Hence, [3].

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **62 secs**

Your Attempt: **Skipped**

% Students got it correct: **43 %**

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

The following grid of 4 × 5 is to be filled with the numbers, 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20 and 21. Exactly one number is to be used twice. It is known that the average of each row and each column is the same integer.

21				2
	7		20	
1		16	5	
	3			18

1) What best can be said about the numbers of the first column in the grid?

- The numbers are 1, 9, 13 & 21, if arranged in ascending order.
- The numbers are 1, 10, 12 & 21, if arranged in ascending order.
- The numbers are 1, 8, 14 & 21, if arranged in ascending order.
- Uniquely cannot be determined.

Video Explanation:

Explanation:

Let the number used twice be 'a'. Total of all the numbers of the grid = 1 + 2 + 3 + 5 + 6 + 7 + 8 + 9 + 10 + 11 + 12 + 13 + 14 + 15 + 16 + 18 + 19 + 20 + 21 + a = 210 + a

Given, the average of each row and each column is the same integer. Thus, the total of the grid must be a multiple of 5 and 4; i.e. 20.

(210 + a) is a multiple of 20. a = 10. It is clear that number 10 is to be used twice in the grid.

The total of each column $= \frac{220}{5} = 44$

The total of each row $= \frac{220}{4} = 55$

21	a	b	c	2	**55**
d	7	e	20	f	**55**
1	g	16	5	h	**55**
i	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

g + h = 33; the only possible combination is 19 + 14

If h is 19; then f = 5 (not possible, already we have 5 in the grid.)

Thus, g = 19 and h = 14; this will give us f = 10 and a = 15

21	15	b	c	2	**55**
d	7	e	20	10	**55**
1	19	16	5	14	**55**
i	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

d + e = 18; possibilities : (6 + 12) & (8 + 10)

d + i = 22; possibilities : (9 + 13) & (10 + 12)

Since d is common in both equation; (9 + 13) combination is ruled out. d is either 10 or 12.

If d is 10 :

21	15	b	c	2	**55**
10	7	8	20	10	**55**
1	19	16	5	14	**55**
12	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

Numbers left to be filled – 6, 9, 11 and 13

b + c = 17 (11 + 6) ; j + k = 22 (13 + 9) ; b + j = 20 (11 + 9) ; c + k = 19(13 + 6)

Thus b = 11; c = 6; j = 9; k = 13

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

The following grid of 4 × 5 is to be filled with the numbers, 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20 and 21. Exactly one number is to be used twice. It is known that the average of each row and each column is the same integer.

21				2
	7		20	
1		16	5	
	3			18

The final table :

21	15	11	6	2	**55**
10	7	8	20	10	**55**
1	19	16	5	14	**55**
12	3	9	13	18	**55**
44	**44**	**44**	**44**	**44**	

If d = 12 :

21	15	b	c	2	**55**
12	7	6	20	10	**55**
1	19	16	5	14	**55**
10	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

Numbers left to be filled – 8, 9, 11 and 13

b + c = 17 (8 + 9); b + j = 22 (9 + 13); j + k = 24 (11 + 13); c + k = 19 (8 + 11)

Thus, b = 9, c = 8, j = 13, k = 11

The final table:

21	15	9	8	2	**55**
12	7	6	20	10	**55**
1	19	16	5	14	**55**
10	3	13	11	18	**55**
44	**44**	**44**	**44**	**44**	

In both the cases, the numbers in the first column are 1, 10, 12 & 21, if arranged in ascending order.
Hence, [2].

Correct Answer: ⌄

Time taken by you: **0 secs**

Avg Time taken by all students: **117 secs**

Your Attempt: **Skipped**

% Students got it correct: **22 %**

2) For how many columns can the numbers be uniquely filled in every cell? −

- 1
- 2
- 3
- 4

Video Explanation: ⌄

Explanation: ⌄

Let the number used twice be 'a'. Total of all the numbers of the grid = 1 + 2 + 3 + 5 + 6 + 7 + 8 + 9 + 10 + 11 + 12 + 13 + 14 + 15 + 16 + 18 + 19 + 20 + 21 + a = 210 + a

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

The following grid of 4 × 5 is to be filled with the numbers, 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20 and 21. Exactly one number is to be used twice. It is known that the average of each row and each column is the same integer.

21				2
	7		20	
1		16	5	
	3			18

Given, the average of each row and each column is the same integer. Thus, the total of the grid n
i.e. 20.

(210 + a) is a multiple of 20. a = 10. It is clear that number 10 is to be used twice in the grid.

The total of each column $= \frac{220}{5} = 44$

The total of each row $= \frac{220}{4} = 55$

21	a	b	c	2	**55**
d	7	e	20	f	**55**
1	g	16	5	h	**55**
i	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

g + h = 33; the only possible combination is 19 + 14

If h is 19; then f = 5 (not possible, already we have 5 in the grid.)

Thus, g = 19 and h = 14; this will give us f = 10 and a = 15

21	15	b	c	2	**55**
d	7	e	20	10	**55**
1	19	16	5	14	**55**
i	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

d + e = 18; possibilities : (6 + 12) & (8 + 10)

d + i = 22; possibilities : (9 + 13) & (10 + 12)

Since d is common in both equation; (9 + 13) combination is ruled out. d is either 10 or 12.

If d is 10 :

21	15	b	c	2	**55**
10	7	8	20	10	**55**
1	19	16	5	14	**55**
12	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

Numbers left to be filled – 6, 9, 11 and 13

b + c = 17 (11 + 6) ; j + k = 22 (13 + 9) ; b + j = 20 (11 + 9) ; c + k = 19(13 + 6)

Thus b = 11; c = 6; j = 9; k = 13

The final table :

21	15	11	6	2	**55**
10	7	8	20	10	**55**
1	19	16	5	14	**55**
12	3	9	13	18	**55**
44	**44**	**44**	**44**	**44**	

If d = 12 :

21	15	b	c	2	**55**
12	7	6	20	10	**55**
1	19	16	5	14	**55**
10	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

Numbers left to be filled – 8, 9, 11 and 13

b + c = 17 (8 + 9); b + j = 22 (9 + 13); j + k = 24 (11 + 13); c + k = 19 (8 + 11)

Thus, b = 9, c = 8, j = 13, k = 11

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

The following grid of 4 × 5 is to be filled with the numbers, 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20 and 21. Exactly one number is to be used twice. It is known that the average of each row and each column is the same integer.

21				2
	7		20	
1		16	5	
	3			18

The final table:

21	15	9	8	2	**55**
12	7	6	20	10	**55**
1	19	16	5	14	**55**
10	3	13	11	18	**55**
44	**44**	**44**	**44**	**44**	

In both the cases in column 2 and column 4 the value in each cell is unique. Hence, [2].

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **40 secs**

Your Attempt: **Skipped**

% Students got it correct: **31 %**

3) What is the average of numbers in each row and each column?

- 8
- 9
- 10
- 11

Video Explanation:

Explanation:

Let the number used twice be 'a'. Total of all the numbers of the grid = 1 + 2 + 3 + 5 + 6 + 7 + 8 + 9 + 10 + 11 + 12 + 13 + 14 + 15 + 16 + 18 + 19 + 20 + 21 + a = 210 + a

Given, the average of each row and each column is the same integer. Thus, the total of the grid must be a multiple of 5 and 4; i.e. 20.

(210 + a) is a multiple of 20. a = 10. It is clear that number 10 is to be used twice in the grid.

The total of each column $= \frac{220}{5} = 44$

The total of each row $= \frac{220}{4} = 55$

21	a	b	c	2	**55**
d	7	e	20	f	**55**
1	g	16	5	h	**55**
i	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

g + h = 33; the only possible combination is 19 + 14

If h is 19; then f = 5 (not possible, already we have 5 in the grid.)

Thus, g = 19 and h = 14; this will give us f = 10 and a = 15

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

The following grid of 4 × 5 is to be filled with the numbers, 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20 and 21. Exactly one number is to be used twice. It is known that the average of each row and each column is the same integer.

21				2
	7		20	
1		16	5	
	3			18

21	15	b	c	2	**55**
d	7	e	20	10	**55**
1	19	16	5	14	**55**
i	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

d + e = 18; possibilities : (6 + 12) & (8 + 10)

d + i = 22; possibilities : (9 + 13) & (10 + 12)

Since d is common in both equation; (9 + 13) combination is ruled out. d is either 10 or 12.

If d is 10 :

21	15	b	c	2	**55**
10	7	8	20	10	**55**
1	19	16	5	14	**55**
12	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

Numbers left to be filled – 6, 9, 11 and 13

b + c = 17 (11 + 6) ; j + k = 22 (13 + 9) ; b + j = 20 (11 + 9) ; c + k = 19(13 + 6)

Thus b = 11; c = 6; j = 9; k = 13

The final table :

21	15	11	6	2	**55**
10	7	8	20	10	**55**
1	19	16	5	14	**55**
12	3	9	13	18	**55**
44	**44**	**44**	**44**	**44**	

If d = 12 :

21	15	b	c	2	**55**
12	7	6	20	10	**55**
1	19	16	5	14	**55**
10	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

Numbers left to be filled – 8, 9, 11 and 13

b + c = 17 (8 + 9); b + j = 22 (9 + 13); j + k = 24 (11 + 13); c + k = 19 (8 + 11)

Thus, b = 9, c = 8, j = 13, k = 11

The final table:

21	15	9	8	2	**55**
12	7	6	20	10	**55**
1	19	16	5	14	**55**
10	3	13	11	18	**55**
44	**44**	**44**	**44**	**44**	

The average of each row and column is 11. Hence, [4].

Correct Answer: ⌄

Time taken by you: **0 secs**

Avg Time taken by all students: **179 secs**

Your Attempt: **Skipped**

% Students got it correct: **84 %**

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

The following grid of 4 × 5 is to be filled with the numbers, 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20 and 21. Exactly one number is to be used twice. It is known that the average of each row and each column is the same integer.

21				2
	7		20	
1		16	5	
	3			18

4) If 2nd row has '6' in one of the cells, then which of the following number is definitely to be filled in row 4 in any cell?

- 11
- 9
- 16
- None of these

Video Explanation:

Explanation:

Let the number used twice be 'a'. Total of all the numbers of the grid = 1 + 2 + 3 + 5 + 6 + 7 + 8 + 9 + 10 + 11 + 12 + 13 + 14 + 15 + 16 + 18 + 19 + 20 + 21 + a = 210 + a

Given, the average of each row and each column is the same integer. Thus, the total of the grid must be a multiple of 5 and 4; i.e. 20.

(210 + a) is a multiple of 20. a = 10. It is clear that number 10 is to be used twice in the grid.

The total of each column $= \frac{220}{5} = 44$

The total of each row $= \frac{220}{4} = 55$

21	a	b	c	2	**55**
d	7	e	20	f	**55**
1	g	16	5	h	**55**
i	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

g + h = 33; the only possible combination is 19 + 14

If h is 19; then f = 5 (not possible, already we have 5 in the grid.)

Thus, g = 19 and h = 14; this will give us f = 10 and a = 15

21	15	b	c	2	**55**
d	7	e	20	10	**55**
1	19	16	5	14	**55**
i	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

d + e = 18; possibilities : (6 + 12) & (8 + 10)

d + i = 22; possibilities : (9 + 13) & (10 + 12)

Since d is common in both equation; (9 + 13) combination is ruled out. d is either 10 or 12.

If d is 10 :

21	15	b	c	2	**55**
10	7	8	20	10	**55**
1	19	16	5	14	**55**
12	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

Numbers left to be filled – 6, 9, 11 and 13

b + c = 17 (11 + 6) ; j + k = 22 (13 + 9) ; b + j = 20 (11 + 9) ; c + k = 19(13 + 6)

Thus b = 11; c = 6; j = 9; k = 13

The final table :

21	15	11	6	2	**55**
10	7	8	20	10	**55**
1	19	16	5	14	**55**
12	3	9	13	18	**55**
44	**44**	**44**	**44**	**44**	

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

The following grid of 4 × 5 is to be filled with the numbers, 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20 and 21. Exactly one number is to be used twice. It is known that the average of each row and each column is the same integer.

21				2
	7		20	
1		16	5	
	3			18

If d = 12 :

21	15	b	c	2	**55**
12	7	6	20	10	**55**
1	19	16	5	14	**55**
10	3	j	k	18	**55**
44	**44**	**44**	**44**	**44**	

Numbers left to be filled – 8, 9, 11 and 13

b + c = 17 (8 + 9); b + j = 22 (9 + 13); j + k = 24 (11 + 13); c + k = 19 (8 + 11)

Thus, b = 9, c = 8, j = 13, k = 11

The final table:

21	15	9	8	2	**55**
12	7	6	20	10	**55**
1	19	16	5	14	**55**
10	3	13	11	18	**55**
44	**44**	**44**	**44**	**44**	

Hence, [1].

Correct Answer: ⌄

Time taken by you: **0 secs**

Avg Time taken by all students: **38 secs**

Your Attempt: **Skipped**

% Students got it correct: **29 %**

Loading...

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

The table below shows the revenue earned (in million $) by four artists Gough, Picassso, Hussain and Da Vinci by selling their paintings in different art galleries – Tussad's, Abbey's and Christie's. The artists are disguised as A, B, C and D in no particular order.

Galleries	Artist A	Artist B	Artist C	Artist D
Abbey's	600	930	910	660
Tussad's	700	830	810	760
Christie's	830	740	830	760

Further it is known that

i. In Christie's, Gough has the highest revenue.

ii. Picasso's total revenue differs from Hussain's total revenue by $ 50 million.

1) What can be said about the following two statements?

Statement 1: Da Vinci has the lowest revenue in Christie's.

Statement 2: Picasso's total revenue is more than Da Vinci's.

- If statement 1 is true then statement 2 is necessarily true.
- If statement 1 is true then statement 2 is necessarily false. ✓
- Both statements 1 and 2 necessarily true.
- Both statements 1 and 2 are necessarily false.

Video Explanation:

Explanation:

Total revenue of Artist A = $ 2130 million

Total revenue of Artist B = $ 2500 million

Total revenue of Artist C = $ 2550 million

Total revenue of Artist D = $ 2180 million

From (i), Gough can be Artist A or Artist C.

Case I:

If Gough is Artist A, then using (ii), Picasso and Hussain must be Artist B and Artist C in some order.

Therefore, Da Vinci must be Artist D.

Case II:

If Gough is Artist C, then using (ii), Picasso and Hussain must be Artist A and Artist D in some order.

Therefore, Da Vinci must be Artist B.

If statement 1 is true then Artist B is Da Vinci. We need to consider *Case II*.

Neither Artist A nor Artist D has revenue greater than Da Vinci's. Therefore, if statement 1 is true then statement 2 is necessarily false. Hence, [2].

Correct Answer:

Time taken by you: **1192 secs**

Avg Time taken by all students: **392 secs**

Your Attempt: **Correct**

% Students got it correct: **77 %**

2) What can be said about the following two statements?

Statement 1: Hussain has the highest share in Abbey's.

Statement 2: Picasso has the highest share in Tussad's.

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

The table below shows the revenue earned (in million $) by four artists Gough, Picassso, Hussain and Da Vinci by selling their paintings in different art galleries – Tussad's, Abbey's and Christie's. The artists are disguised as A, B, C and D in no particular order.

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Christie's	830	740	830	760

Further it is known that

i. In Christie's, Gough has the highest revenue.

ii. Picasso's total revenue differs from Hussain's total revenue by $ 50 million.

- Both statements could be true.
- At least one statement must be true.
- At most one statement can be true.
- None of the above. ✗

Video Explanation:

Explanation:

Total revenue of Artist A = $ 2130 million

Total revenue of Artist B = $ 2500 million

Total revenue of Artist C = $ 2550 million

Total revenue of Artist D = $ 2180 million

From (i), Gough can be Artist A or Artist C.

Case I:

If Gough is Artist A, then using (ii), Picasso and Hussain must be Artist B and Artist C in some order.

Therefore, Da Vinci must be Artist D.

Case II:

If Gough is Artist C, then using (ii), Picasso and Hussain must be Artist A and Artist D in some order.

Therefore, Da Vinci must be Artist B.

If statement 1 is true then Hussain is artist B. This means Picasso is Artist C. However, Artist C doesn't have the highest share in Tussad's. If statement 2 is true then Picasso is Artist B. This means Hussain is Artist C. However, Artist C doesn't have the highest share in Abbey's. Therefore, of the two statements above, at the most one can be true. Hence, [3].

Correct Answer:

Time taken by you: **33 secs**

Avg Time taken by all students: **88 secs**

Your Attempt: **Wrong**

% Students got it correct: **75 %**

3) What can be said about the following two statements?

Statement 1: Picasso has the lowest share in Christie's.

Statement 2: Hussain's lowest revenue is in Tussad's.

- If statement 1 is true, statement 2 is necessarily true.
- If statement 1 is true, statement 2 is necessarily false.
- Both statements 1 and 2 are true. ✗
- Neither of the statements is true.

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

The table below shows the revenue earned (in million $) by four artists Gough, Picassso, Hussain and Da Vinci by selling their paintings in different art galleries – Tussad's, Abbey's and Christie's. The artists are disguised as A, B, C and D in no particular order.

Galleries	Artist A	Artist B	Artist C	Artist D
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Further it is known that

i. In Christie's, Gough has the highest revenue.

ii. Picasso's total revenue differs from Hussain's total revenue by $ 50 million.

Explanation:

Total revenue of Artist A = $ 2130 million

Total revenue of Artist B = $ 2500 million

Total revenue of Artist C = $ 2550 million

Total revenue of Artist D = $ 2180 million

From (i), Gough can be Artist A or Artist C.

Case I:

If Gough is Artist A, then using (ii), Picasso and Hussain must be Artist B and Artist C in some order.

Therefore, Da Vinci must be Artist D.

Case II:

If Gough is Artist C, then using (ii), Picasso and Hussain must be Artist A and Artist D in some order.

Therefore, Da Vinci must be Artist B.

If statement 1 is true then Artist B is Picasso. We need to consider *Case I*. Hussain has to be Artist C and Artist C's lowest revenue $ 810 million which is in Tussad's. Therefore, if statement 1 is true then statement 2 is necessarily true. Hence, [1].

Correct Answer:

Time taken by you: **24 secs**

Avg Time taken by all students: **39 secs**

Your Attempt: **Wrong**

% Students got it correct: **49 %**

4) If Da Vinci's lowest revenue is from Abbey, which of the following is true?

- Gough's lowest revenue is from Christie's.
- Gough's lowest revenue is from Tussad's.
- Gough's lowest revenue is from Abbey's. ✓
- None of the above conclusions can be drawn.

Video Explanation:

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

The table below shows the revenue earned (in million $) by four artists Gough, Picassso, Hussain and Da Vinci by selling their paintings in different art galleries – Tussad's, Abbey's and Christie's. The artists are disguised as A, B, C and D in no particular order.

Galleries	Artist A	Artist B	Artist C	Artist D
Abbey's	600	930	910	660
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Christie's	830	740	830	760

Further it is known that

i. In Christie's, Gough has the highest revenue.

ii. Picasso's total revenue differs from Hussain's total revenue by $ 50 million.

Explanation:

Change Section here

Total revenue of Artist A = $ 2130 million

Total revenue of Artist B = $ 2500 million

Total revenue of Artist C = $ 2550 million

Total revenue of Artist D = $ 2180 million

From (i), Gough can be Artist A or Artist C.

Case I:

If Gough is Artist A, then using (ii), Picasso and Hussain must be Artist B and Artist C in some order.

Therefore, Da Vinci must be Artist D.

Case II:

If Gough is Artist C, then using (ii), Picasso and Hussain must be Artist A and Artist D in some order.

Therefore, Da Vinci must be Artist B.

Da Vinci is either Arist D or Artist B. As Da Vinci's lowest revenue is from Abbey's, he must be Artist D.

Therefore, Gough is Artist A. Gough's lowest revenue is $ 600 million. Gough's revenue of $ 600 million is from Abbey's.

Hence, [3].

Correct Answer:

Time taken by you: **34 secs**

Avg Time taken by all students: **61 secs**

Your Attempt: **Correct**

% Students got it correct: **66 %**

Loading...

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

Six friends Rudransh, Achintya, Bhuvi, Samaira, Khushi and Ishaani have three types of candies namely, Mango, Grape and Orange. Each of them has at least one candy of all the three types. No two of them have equal number of candies of the same type. All six friends have different total number of candies. One who has maximum number of Orange candies has equal number of Mango candies as well. Total number of candies with each of them is less than 20. The price of one Mango candy is Re. 1, the price of one Grape candy is Rs. 2 and the price of one Orange candy is Rs. 5. The total sum of the prices of the candies with each person is Rs. 40.

1) If Rudransh has 4 Orange candies, how many Mango candies does he have?

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.

Six friends Rudransh, Achintya, Bhuvi, Samaira, Khushi and Ishaani have three types of candies namely, Mango, Grape and Orange. Each of them has at least one candy of all the three types. No two of them have equal number of candies of the same type. All six friends have different total number of candies. One who has maximum number of Orange candies has equal number of Mango candies as well. Total number of candies with each of them is less than 20. The price of one Mango candy is Re. 1, the price of one Grape candy is Rs. 2 and the price of one Orange candy is Rs. 5. The total sum of the prices of the candies with each person is Rs. 40.

Explanation:

Change Section here

Given:

- The total sum of the prices of the candies with each person is Rs. 40 and
- One who has the maximum number of Orange candies has the same number of Mango candies as well

Using above two statements, it can be concluded that one cannot have 7 or more number of Orange candies. As no two can have equal number of candies of the same type, the number of Orange candies with the six friends must be 6, 5, 4, 3, 2 and 1 in any order.

One who has 1 Orange candy must have 17 Grape candies and 1 Mango candy (Each of them has total candies less than 20). Total candies = 1 + 17 + 1 = 19

Now the remaining friends have less than 19 candies.

One who has 2 Orange candies, the equation for Mango and Grape candies: 1M + 2G = 30

Also, 2 + M + G < 19 ⇒ M + G < 17

∴ 13 < G

1M + 2G = 30 ⇒ Value of 'M' is even. ∴ G < 15 and hence, 13 < G < 15

∴ G = 14; M = 2; Total candies = 2 + 14 + 2 =18

So it is clear that one who has 2 Orange candies has 2 Mango candies and 14 Grape candies. Now the remaining friends have less than 18 candies.

One who has 3 Orange candies, the equation for Mango and Grape candies: 1M + 2G = 25

Number of Mango candies has to be odd and it cannot be 1.

i.e., M ≥ 3 ⇒ 25 – 2G ≥ 3 ⇒ 11 ≥ G

Also, 3 + M + G < 18 ⇒ G < 12

∴ G = 11 ⇒ M = 3 ⇒ Total candies = 3 + 3 + 11 = 17.

So it is clear that one who has 3 Orange candies has 3 Mango candies and 11 Grape candies.

This way, the following table can be made:

Orange candy	Grape candy	Mango candy	**Total candies**
1	17	1	**19**
2	14	2	**18**
3	11	3	**17**
4	8	4	**16**
5	5	5	**15**
6	2	6	**14**

If Rudransh has 4 Orange candies, he has 4 Mango candies. Therefore, the required answer is 4.

Correct Answer:

Avg Time taken by all students: **147 se**

Change Section here ▾

Your Attempt: **Skipped**

% Students got it correct: **30 %**

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

Six friends Rudransh, Achintya, Bhuvi, Samaira, Khushi and Ishaani have three types of candies namely, Mango, Grape and Orange. Each of them has at least one candy of all the three types. No two of them have equal number of candies of the same type. All six friends have different total number of candies. One who has maximum number of Orange candies has equal number of Mango candies as well. Total number of candies with each of them is less than 20. The price of one Mango candy is Re. 1, the price of one Grape candy is Rs. 2 and the price of one Orange candy is Rs. 5. The total sum of the prices of the candies with each person is Rs. 40.

2) What is the total number of Grape candies with the six friends taken together?

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.

Six friends Rudransh, Achintya, Bhuvi, Samaira, Khushi and Ishaani have three types of candies namely, Mango, Grape and Orange. Each of them has at least one candy of all the three types. No two of them have equal number of candies of the same type. All six friends have different total number of candies. One who has maximum number of Orange candies has equal number of Mango candies as well. Total number of candies with each of them is less than 20. The price of one Mango candy is Re. 1, the price of one Grape candy is Rs. 2 and the price of one Orange candy is Rs. 5. The total sum of the prices of the candies with each person is Rs. 40.

Explanation:

Change Section here ▾

Given:

- The total sum of the prices of the candies with each person is Rs. 40 and
- One who has the maximum number of Orange candies has the same number of Mango candies as well

Using above two statements, it can be concluded that one cannot have 7 or more number of Orange candies. As no two can have equal number of candies of the same type, the number of Orange candies with the six friends must be 6, 5, 4, 3, 2 and 1 in any order.

One who has 1 Orange candy must have 17 Grape candies and 1 Mango candy (Each of them has total candies less than 20). Total candies = 1 + 17 + 1 = 19

Now the remaining friends have less than 19 candies.

One who has 2 Orange candies, the equation for Mango and Grape candies: 1M + 2G = 30

Also, 2 + M + G < 19 ⇒ M + G < 17

∴ 13 < G

1M + 2G = 30 ⇒ Value of 'M' is even. ∴ G < 15 and hence, 13 < G < 15

∴ G = 14; M = 2; Total candies = 2 + 14 + 2 =18

So it is clear that one who has 2 Orange candies has 2 Mango candies and 14 Grape candies. Now the remaining friends have less than 18 candies.

One who has 3 Orange candies, the equation for Mango and Grape candies: 1M + 2G = 25

Number of Mango candies has to be odd and it cannot be 1.

i.e., M ≥ 3 ⇒ 25 – 2G ≥ 3 ⇒ 11 ≥ G

Also, 3 + M + G < 18 ⇒ G < 12

∴ G = 11 ⇒ M = 3 ⇒ Total candies = 3 + 3 + 11 = 17.

So it is clear that one who has 3 Orange candies has 3 Mango candies and 11 Grape candies.

This way, the following table can be made:

Orange candy	Grape candy	Mango candy	**Total candies**
1	17	1	**19**
2	14	2	**18**
3	11	3	**17**
4	8	4	**16**
5	5	5	**15**
6	2	6	**14**

Number of Grape candies = 17 + 14 + 11 + 8 + 5 + 2 = 57.
Therefore, the required answer is 57.

Correct Answer:

Avg Time taken by all students: **18 sec**

Change Section here ▾

Your Attempt: **Skipped**

% Students got it correct: **17 %**

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

Six friends Rudransh, Achintya, Bhuvi, Samaira, Khushi and Ishaani have three types of candies namely, Mango, Grape and Orange. Each of them has at least one candy of all the three types. No two of them have equal number of candies of the same type. All six friends have different total number of candies. One who has maximum number of Orange candies has equal number of Mango candies as well. Total number of candies with each of them is less than 20. The price of one Mango candy is Re. 1, the price of one Grape candy is Rs. 2 and the price of one Orange candy is Rs. 5. The total sum of the prices of the candies with each person is Rs. 40.

3) If Khushi has 3 Mango candies, how many Grape candies does she have?

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.

Six friends Rudransh, Achintya, Bhuvi, Samaira, Khushi and Ishaani have three types of candies namely, Mango, Grape and Orange. Each of them has at least one candy of all the three types. No two of them have equal number of candies of the same type. All six friends have different total number of candies. One who has maximum number of Orange candies has equal number of Mango candies as well. Total number of candies with each of them is less than 20. The price of one Mango candy is Re. 1, the price of one Grape candy is Rs. 2 and the price of one Orange candy is Rs. 5. The total sum of the prices of the candies with each person is Rs. 40.

Explanation:

Change Section here

Given:

- The total sum of the prices of the candies with each person is Rs. 40 and
- One who has the maximum number of Orange candies has the same number of Mango candies as well

Using above two statements, it can be concluded that one cannot have 7 or more number of Orange candies. As no two can have equal number of candies of the same type, the number of Orange candies with the six friends must be 6, 5, 4, 3, 2 and 1 in any order.

One who has 1 Orange candy must have 17 Grape candies and 1 Mango candy (Each of them has total candies less than 20). Total candies = 1 + 17 + 1 = 19

Now the remaining friends have less than 19 candies.

One who has 2 Orange candies, the equation for Mango and Grape candies: 1M + 2G = 30

Also, 2 + M + G < 19 ⇒ M + G < 17

∴ 13 < G

1M + 2G = 30 ⇒ Value of 'M' is even. ∴ G < 15 and hence, 13 < G < 15

∴ G = 14; M = 2; Total candies = 2 + 14 + 2 =18

So it is clear that one who has 2 Orange candies has 2 Mango candies and 14 Grape candies. Now the remaining friends have less than 18 candies.

One who has 3 Orange candies, the equation for Mango and Grape candies: 1M + 2G = 25

Number of Mango candies has to be odd and it cannot be 1.

i.e., M ≥ 3 ⇒ 25 – 2G ≥ 3 ⇒ 11 ≥ G

Also, 3 + M + G < 18 ⇒ G < 12

∴ G = 11 ⇒ M = 3 ⇒ Total candies = 3 + 3 + 11 = 17.

So it is clear that one who has 3 Orange candies has 3 Mango candies and 11 Grape candies.

This way, the following table can be made:

Orange candy	Grape candy	Mango candy	**Total candies**
1	17	1	**19**
2	14	2	**18**
3	11	3	**17**
4	8	4	**16**
5	5	5	**15**
6	2	6	**14**

If Khushi has 3 Mango candies, she has 11 Grape candies. Therefore, the required answer is 11.

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **40 sec**

Change Section here ▾

Your Attempt: **Skipped**

% Students got it correct: **32 %**

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

Six friends Rudransh, Achintya, Bhuvi, Samaira, Khushi and Ishaani have three types of candies namely, Mango, Grape and Orange. Each of them has at least one candy of all the three types. No two of them have equal number of candies of the same type. All six friends have different total number of candies. One who has maximum number of Orange candies has equal number of Mango candies as well. Total number of candies with each of them is less than 20. The price of one Mango candy is Re. 1, the price of one Grape candy is Rs. 2 and the price of one Orange candy is Rs. 5. The total sum of the prices of the candies with each person is Rs. 40.

4) If Samaira has 2 Orange candies, what is the total number of candies with her?

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.

Six friends Rudransh, Achintya, Bhuvi, Samaira, Khushi and Ishaani have three types of candies namely, Mango, Grape and Orange. Each of them has at least one candy of all the three types. No two of them have equal number of candies of the same type. All six friends have different total number of candies. One who has maximum number of Orange candies has equal number of Mango candies as well. Total number of candies with each of them is less than 20. The price of one Mango candy is Re. 1, the price of one Grape candy is Rs. 2 and the price of one Orange candy is Rs. 5. The total sum of the prices of the candies with each person is Rs. 40.

Explanation:

Change Section here ▾

Given:

- The total sum of the prices of the candies with each person is Rs. 40 and
- One who has the maximum number of Orange candies has the same number of Mango candies as well

Using above two statements, it can be concluded that one cannot have 7 or more number of Orange candies. As no two can have equal number of candies of the same type, the number of Orange candies with the six friends must be 6, 5, 4, 3, 2 and 1 in any order.

One who has 1 Orange candy must have 17 Grape candies and 1 Mango candy (Each of them has total candies less than 20). Total candies = 1 + 17 + 1 = 19

Now the remaining friends have less than 19 candies.

One who has 2 Orange candies, the equation for Mango and Grape candies: 1M + 2G = 30

Also, 2 + M + G < 19 ⇒ M + G < 17

∴ 13 < G

1M + 2G = 30 ⇒ Value of 'M' is even. ∴ G < 15 and hence, 13 < G < 15

∴ G = 14; M = 2; Total candies = 2 + 14 + 2 =18

So it is clear that one who has 2 Orange candies has 2 Mango candies and 14 Grape candies. Now the remaining friends have less than 18 candies.

One who has 3 Orange candies, the equation for Mango and Grape candies: 1M + 2G = 25

Number of Mango candies has to be odd and it cannot be 1.

i.e., M ≥ 3 ⇒ 25 – 2G ≥ 3 ⇒ 11 ≥ G

Also, 3 + M + G < 18 ⇒ G < 12

∴ G = 11 ⇒ M = 3 ⇒ Total candies = 3 + 3 + 11 = 17.

So it is clear that one who has 3 Orange candies has 3 Mango candies and 11 Grape candies.

This way, the following table can be made:

Orange candy	Grape candy	Mango candy	**Total candies**
1	17	1	**19**
2	14	2	**18**
3	11	3	**17**
4	8	4	**16**
5	5	5	**15**
6	2	6	**14**

If Samaira has 2 Orange candies, she has 2 + 15 + 2 = 18 candies in all. Therefore, the required answer is 18.

Correct Answer: ⌄

Time taken by you: **0 secs**

Avg Time taken by all students: **41 sec**

Change Section here ▼

Your Attempt: **Skipped**

% Students got it correct: **36 %**

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

Six friends Rudransh, Achintya, Bhuvi, Samaira, Khushi and Ishaani have three types of candies namely, Mango, Grape and Orange. Each of them has at least one candy of all the three types. No two of them have equal number of candies of the same type. All six friends have different total number of candies. One who has maximum number of Orange candies has equal number of Mango candies as well. Total number of candies with each of them is less than 20. The price of one Mango candy is Re. 1, the price of one Grape candy is Rs. 2 and the price of one Orange candy is Rs. 5. The total sum of the prices of the candies with each person is Rs. 40.

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

Dhruv Sports Academy conducts training for Marathon. The academy has total five running tracks of lengths 5 km, 6.5 km, 8 km, 9.5 km and 11 km respectively. The training module lasts for five weeks. Each week begins on Sunday. Exactly one running track out of the five is used on the days when training sessions are held subject to the following conditions:

1. 5 km run should be included every week, but at most two times a week.
2. Week 4 must begin with either of the two longest tracks available.
3. There is off on Monday and Friday for all the weeks. Over and above this, first 3 weeks have one additional off, which may or may not fall on the same day of the week (Note: The additional off may fall on Sunday). No training session is held on any of the tracks on the day of the off.

The following partially filled table shows the scheduling of training on different running tracks over the five days.

Week	Sunday run (in km)	Monday run (in km)	Tuesday run (in km)	Wednesday run (in km)	Thursday run (in km)	Friday run (in km)	Saturday run (in km)	Total run (in km)
1			5		6.5			23
2	6.5				6.5			24.5
3	8				6.5			26
4			5				6.5	34
5	11				6.5			38.5

The last column in the table shows the sum of the lengths of the running tracks (in km) used for training on the seven days of the week.

1) What can be the minimum possible difference (in km) between the sum of the lengths of the running tracks (in km) used on Sundays of five weeks and the sum of the lengths of the running tracks (in km) used on Saturdays of all the weeks, provided no Saturday had an off?

- 0
- 0.5
- 1
- 1.5

Video Explanation:

Explanation:

Since Mondays and Fridays are off, we get the following:

Week 1

Given: Total run = 23 km, out of which the entries given in the table so far account for 5 + 6.5 = 11.5 km. The balance 23 – 11.5 = 11.5 km needs to be accounted for in two days (as one of the remaining three days is off).

There is only one possibility of tracks that sum up to 11.5 km i.e., 5 km and 6.5 km.

Week 2

Given: Total run = 24.5 km, out of which the entries given in the table so far account for 6.5 + 6.5 = 13 km. The balance 24.5 – 13 = 11.5 km needs to be accounted for in two days (as one of the remaining three days is off).

There is only one possibility of tracks that sum up to 11.5 km i.e., 5 km and 6.5 km.

Week 3

Given: Total run = 26 km, out of which the entries given in the table so far account for 8 + 6.5 = 14.5 km. The balance 26 – 14.5 = 11.5 km needs to be accounted for in two days (as one of the remaining three days is off).

There is only one possibility of tracks that sum up to 11.5 km i.e., 5 km and 6.5 km.

Week 4

Given: Total run = 34 km, out of which the entries given in the table so far account for 5 + 6.5 = 11.5 km. The balance 34 – 11.5 = 22.5 km needs to be accounted for in three days. Also, Week 4 must begin with either 9.5 km or 11 km (condition 2).

Therefore, there are following three possibilities:

9.5 + 5 + 8 or 9.5 + 6.5 + 6.5 or 11 + 5 + 6.5

Week 5

Given: Total run = 38.5 km, out of which the entries given in the table so far account for 11 + 6.5 = 17.5 km. The balance 38.5 – 17.5 = 21 km needs to be accounted for in three days.

There are following three possibilities:

5 + 9.5 + 6.5 or 11 + 5 + 5 or 8 + 8 + 5

Information already available:

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

Dhruv Sports Academy conducts training for Marathon. The academy has total five running tracks of lengths 5 km, 6.5 km, 8 km, 9.5 km and 11 km respectively. The training module lasts for five weeks. Each week begins on Sunday. Exactly one running track out of the five is used on the days when training sessions are held subject to the following conditions:

1. 5 km run should be included every week, but at most two times a week.
2. Week 4 must begin with either of the two longest tracks available.
3. There is off on Monday and Friday for all the weeks. Over and above this, first 3 weeks have one additional off, which may or may not fall on the same day of the week (Note: The additional off may fall on Sunday). No training session is held on any of the tracks on the day of the off.

The following partially filled table shows the scheduling of training on different running tracks over the five days.

Week	Sunday run (in km)	Monday run (in km)	Tuesday run (in km)	Wednesday run (in km)	Thursday run (in km)	Friday run (in km)	Saturday run (in km)	Total run (in km)
1			5		6.5			23
2	6.5				6.5			24.5
3	8				6.5			26
4			5				6.5	34
5	11				6.5			38.5

The last column in the table shows the sum of the lengths of the running tracks (in km) used for training on the seven days of the week.

Week	Sunday (in km)	Saturday (in km)
1		
2	6.5	
3	8	
4		6.5
5	11	

Sunday total so far = 6.5 + 8 + 11 = 25.5 km. Consider that Week 4 begins with 9.5 km. Therefore, Sunday total so far = 25.5 + 9.5 = 35 km.

Since no Saturday is off, we fill the maximum possible values for first 3 weeks. So far we have the following:

Week	Sunday (in km)	Saturday (in km)
1		6.5
2	6.5	6.5
3	8	6.5
4	9.5	6.5
5	11	
Total	**35**	**26**

In order to minimize the difference, let us assign 0 km on Sunday in Week 1 (Sunday can be off in Week 1) and 9.5 km on Saturday in Week 5. Therefore, we have the following

Week	Sunday (in km)	Saturday (in km)
1	0	6.5
2	6.5	6.5
3	8	6.5
4	9.5	6.5
5	11	9.5
Total	**35**	**35.5**

Therefore, the minimum possible difference = 35.5 – 35 = 0.5 km

Hence, [2].

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **107 secs**

Your Attempt: **Skipped**

% Students got it correct: **42 %**

2) What can be the maximum possible sum (in km) of the lengths of the running tracks used on Wednesdays of all the weeks?

- 37.5
- 40
- 38.5
- 41.5

Video Explanation:

 Explanation:

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

Dhruv Sports Academy conducts training for Marathon. The academy has total five running tracks of lengths 5 km, 6.5 km, 8 km, 9.5 km and 11 km respectively. The training module lasts for five weeks. Each week begins on Sunday. Exactly one running track out of the five is used on the days when training sessions are held subject to the following conditions:

1. 5 km run should be included every week, but at most two times a week.
2. Week 4 must begin with either of the two longest tracks available.
3. There is off on Monday and Friday for all the weeks. Over and above this, first 3 weeks have one additional off, which may or may not fall on the same day of the week (Note: The additional off may fall on Sunday). No training session is held on any of the tracks on the day of the off.

The following partially filled table shows the scheduling of training on different running tracks over the five days.

Week	Sunday run (in km)	Monday run (in km)	Tuesday run (in km)	Wednesday run (in km)	Thursday run (in km)	Friday run (in km)	Saturday run (in km)	Total run (in km)
1			5		6.5			23
2	6.5				6.5			24.5
3	8				6.5			26
4			5				6.5	34
5	11				6.5			38.5

The last column in the table shows the sum of the lengths of the running tracks (in km) used for training on the seven days of the week.

Since Mondays and Fridays are off, we get the following:

Week 1

Given: Total run = 23 km, out of which the entries given in the table so far account for 5 + 6.5 = 11.5 km. The balance 23 – 11.5 = 11.5 km needs to be accounted for in two days (as one of the remaining three days is off).

There is only one possibility of tracks that sum up to 11.5 km i.e., 5 km and 6.5 km.

Week 2

Given: Total run = 24.5 km, out of which the entries given in the table so far account for 6.5 + 6.5 = 13 km. The balance 24.5 – 13 = 11.5 km needs to be accounted for in two days (as one of the remaining three days is off).

There is only one possibility of tracks that sum up to 11.5 km i.e., 5 km and 6.5 km.

Week 3

Given: Total run = 26 km, out of which the entries given in the table so far account for 8 + 6.5 = 14.5 km. The balance 26 – 14.5 = 11.5 km needs to be accounted for in two days (as one of the remaining three days is off).

There is only one possibility of tracks that sum up to 11.5 km i.e., 5 km and 6.5 km.

Week 4

Given: Total run = 34 km, out of which the entries given in the table so far account for 5 + 6.5 = 11.5 km. The balance 34 – 11.5 = 22.5 km needs to be accounted for in three days. Also, Week 4 must begin with either 9.5 km or 11 km (condition 2).

Therefore, there are following three possibilities:

9.5 + 5 + 8 or 9.5 + 6.5 + 6.5 or 11 + 5 + 6.5

Week 5

Given: Total run = 38.5 km, out of which the entries given in the table so far account for 11 + 6.5 = 17.5 km. The balance 38.5 – 17.5 = 21 km needs to be accounted for in three days.

There are following three possibilities:

5 + 9.5 + 6.5 or 11 + 5 + 5 or 8 + 8 + 5

We will consider all maximum possible values.

Week	Wednesday
1	6.5
2	6.5
3	6.5
4	8
5	11

Note: Week 4 begin with tracks of length 11 km or 9.5 km. Therefore, in Week 4 length of the track used on Wednesday cannot be 11 km or 9.5 km. Therefore, the required total = 38.5 km

Hence, [3].

Correct Answer: ⌄

Time taken by you: **0 secs**

Avg Time taken by all students: **84 sec**

Change Section here

Your Attempt: **Skipped**

% Students got it correct: **46 %**

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

Dhruv Sports Academy conducts training for Marathon. The academy has total five running tracks of lengths 5 km, 6.5 km, 8 km, 9.5 km and 11 km respectively. The training module lasts for five weeks. Each week begins on Sunday. Exactly one running track out of the five is used on the days when training sessions are held subject to the following conditions:

1. 5 km run should be included every week, but at most two times a week.
2. Week 4 must begin with either of the two longest tracks available.
3. There is off on Monday and Friday for all the weeks. Over and above this, first 3 weeks have one additional off, which may or may not fall on the same day of the week (Note: The additional off may fall on Sunday). No training session is held on any of the tracks on the day of the off.

The following partially filled table shows the scheduling of training on different running tracks over the five days.

Week	Sunday run (in km)	Monday run (in km)	Tuesday run (in km)	Wednesday run (in km)	Thursday run (in km)	Friday run (in km)	Saturday run (in km)	Total run (in km)
1			5		6.5			23
2	6.5				6.5			24.5
3	8				6.5			26
4			5				6.5	34
5	11				6.5			38.5

The last column in the table shows the sum of the lengths of the running tracks (in km) used for training on the seven days of the week.

3) If both weeks 4 and 5 schedule 9.5 km run exactly once, then how many times will 6.5 km run be scheduled in the five weeks training module?

- 9
- 10
- 11
- Cannot be determined

Video Explanation:

 Explanation:

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

Dhruv Sports Academy conducts training for Marathon. The academy has total five running tracks of lengths 5 km, 6.5 km, 8 km, 9.5 km and 11 km respectively. The training module lasts for five weeks. Each week begins on Sunday. Exactly one running track out of the five is used on the days when training sessions are held subject to the following conditions:

1. 5 km run should be included every week, but at most two times a week.
2. Week 4 must begin with either of the two longest tracks available.
3. There is off on Monday and Friday for all the weeks. Over and above this, first 3 weeks have one additional off, which may or may not fall on the same day of the week (Note: The additional off may fall on Sunday). No training session is held on any of the tracks on the day of the off.

The following partially filled table shows the scheduling of training on different running tracks over the five days.

Week	Sunday run (in km)	Monday run (in km)	Tuesday run (in km)	Wednesday run (in km)	Thursday run (in km)	Friday run (in km)	Saturday run (in km)	Total run (in km)
1			5		6.5			23
2	6.5				6.5			24.5
3	8				6.5			26
4			5				6.5	34
5	11				6.5			38.5

The last column in the table shows the sum of the lengths of the running tracks (in km) used for training on the seven days of the week.

Since Mondays and Fridays are off, we get the following:

Week 1

Given: Total run = 23 km, out of which the entries given in the table so far account for 5 + 6.5 = 11.5 km. The balance 23 – 11.5 = 11.5 km needs to be accounted for in two days (as one of the remaining three days is off).

There is only one possibility of tracks that sum up to 11.5 km i.e., 5 km and 6.5 km.

Week 2

Given: Total run = 24.5 km, out of which the entries given in the table so far account for 6.5 + 6.5 = 13 km. The balance 24.5 – 13 = 11.5 km needs to be accounted for in two days (as one of the remaining three days is off).

There is only one possibility of tracks that sum up to 11.5 km i.e., 5 km and 6.5 km.

Week 3

Given: Total run = 26 km, out of which the entries given in the table so far account for 8 + 6.5 = 14.5 km. The balance 26 – 14.5 = 11.5 km needs to be accounted for in two days (as one of the remaining three days is off).

There is only one possibility of tracks that sum up to 11.5 km i.e., 5 km and 6.5 km.

Week 4

Given: Total run = 34 km, out of which the entries given in the table so far account for 5 + 6.5 = 11.5 km. The balance 34 – 11.5 = 22.5 km needs to be accounted for in three days. Also, Week 4 must begin with either 9.5 km or 11 km (condition 2).

Therefore, there are following three possibilities:

9.5 + 5 + 8 or 9.5 + 6.5 + 6.5 or 11 + 5 + 6.5

Week 5

Given: Total run = 38.5 km, out of which the entries given in the table so far account for 11 + 6.5 = 17.5 km. The balance 38.5 – 17.5 = 21 km needs to be accounted for in three days.

There are following three possibilities:

5 + 9.5 + 6.5 or 11 + 5 + 5 or 8 + 8 + 5

If both week 4 and 5 schedule 9.5 km run exactly once then the tracks to be used are unique.

Week 5: 11 km, 9.5 km, 6.5 km, 6.5 km and 5 km i.e., 2 times

Week 4: 9.5 km, 5 km, 5 km, 8 km and 6.5 km i.e., 1 time

(OR) 9.5 km, 6.5 km, 5 km, 6.5 km and 6.5 km i.e., 3 times

Week 3: 8 km, 5 km, 6.5 km and 6.5 km i.e., 2 times

Week 2: 6.5 km, 5 km, 6.5 km and 6.5 km i.e., 3 times

Week 1: 5 km, 5 km, 6.5 km and 6.5 km i.e., 2 times

Therefore, 6.5 km run can be scheduled total 2 + 3 + 2 + 1 + 2 = 10 times

(OR) 2 + 3 + 2 + 3 + 2 = 12 times

Hence, [4].

Correct Answer:

Avg Time taken by all students: **20 secs**

Your Attempt: **Skipped**

% Students got it correct: **16 %**

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

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2. Week 4 must begin with either of the two longest tracks available.
3. There is off on Monday and Friday for all the weeks. Over and above this, first 3 weeks have one additional off, which may or may not fall on the same day of the week (Note: The additional off may fall on Sunday). No training session is held on any of the tracks on the day of the off.

The following partially filled table shows the scheduling of training on different running tracks over the five days.

Week	Sunday run (in km)	Monday run (in km)	Tuesday run (in km)	Wednesday run (in km)	Thursday run (in km)	Friday run (in km)	Saturday run (in km)	Total run (in km)
1			5		6.5			23
2	6.5				6.5			24.5
3	8				6.5			26
4			5				6.5	34
5	11				6.5			38.5

The last column in the table shows the sum of the lengths of the running tracks (in km) used for training on the seven days of the week.

4) Which running track was used for the training session on Sunday on Week 1?

- 5 km
- 6.5 km ✗
- 8 km
- Cannot be determined

Video Explanation:

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

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1. 5 km run should be included every week, but at most two times a week.
2. Week 4 must begin with either of the two longest tracks available.
3. There is off on Monday and Friday for all the weeks. Over and above this, first 3 weeks have one additional off, which may or may not fall on the same day of the week (Note: The additional off may fall on Sunday). No training session is held on any of the tracks on the day of the off.

The following partially filled table shows the scheduling of training on different running tracks over the five days.

Week	Sunday run (in km)	Monday run (in km)	Tuesday run (in km)	Wednesday run (in km)	Thursday run (in km)	Friday run (in km)	Saturday run (in km)	Total run (in km)
1			5		6.5			23
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3	8				6.5			26
4			5				6.5	34
5	11				6.5			38.5

The last column in the table shows the sum of the lengths of the running tracks (in km) used for training on the seven days of the week.

Explanation:

Change Section here

Since Mondays and Fridays are off, we get the following:

Week 1

Given: Total run = 23 km, out of which the entries given in the table so far account for 5 + 6.5 = 11.5 km. The balance 23 – 11.5 = 11.5 km needs to be accounted for in two days (as one of the remaining three days is off).

There is only one possibility of tracks that sum up to 11.5 km i.e., 5 km and 6.5 km.

Week 2

Given: Total run = 24.5 km, out of which the entries given in the table so far account for 6.5 + 6.5 = 13 km. The balance 24.5 – 13 = 11.5 km needs to be accounted for in two days (as one of the remaining three days is off).

There is only one possibility of tracks that sum up to 11.5 km i.e., 5 km and 6.5 km.

Week 3

Given: Total run = 26 km, out of which the entries given in the table so far account for 8 + 6.5 = 14.5 km. The balance 26 – 14.5 = 11.5 km needs to be accounted for in two days (as one of the remaining three days is off).

There is only one possibility of tracks that sum up to 11.5 km i.e., 5 km and 6.5 km.

Week 4

Given: Total run = 34 km, out of which the entries given in the table so far account for 5 + 6.5 = 11.5 km. The balance 34 – 11.5 = 22.5 km needs to be accounted for in three days. Also, Week 4 must begin with either 9.5 km or 11 km (condition 2).

Therefore, there are following three possibilities:

9.5 + 5 + 8 or 9.5 + 6.5 + 6.5 or 11 + 5 + 6.5

Week 5

Given: Total run = 38.5 km, out of which the entries given in the table so far account for 11 + 6.5 = 17.5 km. The balance 38.5 – 17.5 = 21 km needs to be accounted for in three days.

There are following three possibilities:

5 + 9.5 + 6.5 or 11 + 5 + 5 or 8 + 8 + 5

On Sunday of Week 1, we may have either 0 or 5 km or 6.5 km. Hence, [4].

Correct Answer:

Time taken by you: **551 secs**

Avg Time taken by all students: **435 secs**

Your Attempt: **Wrong**

% Students got it correct: **80 %**

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

Loading...

Dhruv Sports Academy conducts training for Marathon. The academy has total five running tracks of lengths 5 km, 6.5 km, 8 km, 9.5 km and 11 km respectively. The training module lasts for five weeks. Each week begins on Sunday. Exactly one running track out of the five is used on the days when training sessions are held subject to the following conditions:

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The following partially filled table shows the scheduling of training on different running tracks over the five days.

Week	Sunday run (in km)	Monday run (in km)	Tuesday run (in km)	Wednesday run (in km)	Thursday run (in km)	Friday run (in km)	Saturday run (in km)	Total run (in km)
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2	6.5				6.5			24.5
3	8				6.5			26
4			5				6.5	34
5	11				6.5			38.5

The last column in the table shows the sum of the lengths of the running tracks (in km) used for training on the seven days of the week.

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

Kavish, Aarav, Kaiyra, Ayansh, Meera and Avyukt are to be chosen for one among the following activities : Singing, Dancing, Drama, Speech, Mono-Acting and Poem reciting. Exactly one student has to be chosen for one activity. A student must not be selected for a particular activity if he or she definitely does not like it. Each student may like one or more activities.

The following statements identify their preferences for the different activities:

1. All those who like Dancing also like Singing. Aarav likes Dancing.
2. All those who like Drama also like Speech. Kavish likes Speech and does not like Mono-Acting and Singing.
3. All those who like Mono-Acting do not like Drama.
4. Some of those who like Mono-Acting also like Singing. Ayansh likes Singing.
5. Some of those who like Speech also like Mono-Acting. Meera likes Mono-Acting.
6. All those who like Speech also like Poem Reciting.
7. Kaiyra likes Drama and Avyukt likes Poem Reciting.
8. All those who like Dancing do not like Poem Reciting.
9. Ayansh does not like Drama and Kaiyra does not like Singing.

1) If Kavish is selected for Drama and Avyukt is selected for Poem Reciting then who is definitely selected for Speech?

- Meera
- Ayansh
- Kaiyra
- Either Meera or Kaiyra

Video Explanation:

Explanation:

The following tables can be made for likings of each student:

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Kavish	No (Statement 2)	No (Statements 2, 6 & 8)	Possible (Statement 2)	Yes (Statement 2)	No (Statement 2)	Yes (Statements 2 & 6)

Here, Possible means, Kavish may or may not like Drama. Thus, he must be chosen for one activity among Speech, Poem Reciting and Drama.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Aarav	Yes (Statement 1)	Yes (Statement 1)	No (Statement 1, 8, 6 & 2)	No (Statement 1, 8 & 6)	Possible (Statement 1 & 4)	No (Statement 1 & 8)

Aarav must be chosen for one activity among Singing, Dancing and Mono-Acting.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Kaiyra	No Statement 9	No Statement 7, 2, 6 & 8	Yes Statement 7	Yes Statement 7 & 2	No Statement 7 & 3	Yes Statement 7, 2 & 6

Kaiyra must be chosen for one of the activities among Drama, Speech & Poem Reciting.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Ayansh	Yes Statement 4	Possible Statement 4 & 1	No Statement 9	Possible Statement 4 & 5	Possible Statement 4	Possible Statement 4, 5 & 6

Ayansh may be selected for any of the activities except Drama. But he may like either Dancing or Speech & Poem Reciting. If he likes Dancing, he does not like both Speech & Poem Reciting.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Meera	Possible Statement 5 & 4	Possible Statement 5, 4 & 1	No Statement 5 & 3	Possible Statement 5	Yes Statement 5	Possible Statement 5 & 6

Meera may be chosen for any activity except Drama. . But she may like either Dancing or Speech & Poem Reciting. If she likes Dancing, she does not like both Speech & Poem Reciting.

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

Kavish, Aarav, Kaiyra, Ayansh, Meera and Avyukt are to be chosen for one among the following activities : Singing, Dancing, Drama, Speech, Mono-Acting and Poem reciting. Exactly one student has to be chosen for one activity. A student must not be selected for a particular activity if he or she definitely does not like it. Each student may like one or more activities.

The following statements identify their preferences for the different activities:

1. All those who like Dancing also like Singing. Aarav likes Dancing.
2. All those who like Drama also like Speech. Kavish likes Speech and does not like Mono-Acting and Singing.
3. All those who like Mono-Acting do not like Drama.
4. Some of those who like Mono-Acting also like Singing. Ayansh likes Singing.
5. Some of those who like Speech also like Mono-Acting. Meera likes Mono-Acting.
6. All those who like Speech also like Poem Reciting.
7. Kaiyra likes Drama and Avyukt likes Poem Reciting.
8. All those who like Dancing do not like Poem Reciting.
9. Ayansh does not like Drama and Kaiyra does not like Singing.

	Singing	Dancing	Drama			
Avyukt	Possible Statement 7, 6, 5 &4	No Statement 7 & 8	Possible Statement 7, 6 & 2	Possible Statement 7 & 6	Possible Statement 7, 6 & 5	Yes Statement 7

Avyukt may be selected for any activity except Dancing.

Final table of likings of all six students :

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Kavish	No	No	Possible	Yes	No	Yes
Aarav	Yes	Yes	No	No	Possible	No
Kaiyra	No	No	Yes	Yes	No	Yes
Ayansh	Yes	Possible	No	Possible	Possible	Possible
Meera	Possible	Possible	No	Possible	Yes	Possible
Avyukt	Possible	No	Possible	Possible	Possible	Yes

If Kavish is selected for Drama and Avyukt is selected for Poem Reciting; then Kaiyra must be selected for Speech.

Kaiyra likes only 3 activities, Drama, Poem Reciting and Speech. Of which Kavish and Avyukt are selected for Drama and Poem Reciting respectively.

Hence, [3].

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **357 secs**

Your Attempt: **Skipped**

% Students got it correct: **57 %**

2) If Meera is selected for Dancing and Ayansh is selected for Singing then who is selected for Mono-Acting?

- Aarav
- Avyukt
- Either Aarav or Avyukt
- Cannot be determined

Video Explanation:

Explanation:

The following tables can be made for likings of each student:

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Kavish	No (Statement 2)	No (Statements 2, 6 & 8)	Possible (Statement 2)	Yes (Statement 2)	No (Statement 2)	Yes (Statements 2 & 6)

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

Kavish, Aarav, Kaiyra, Ayansh, Meera and Avyukt are to be chosen for one among the following activities : Singing, Dancing, Drama, Speech, Mono-Acting and Poem reciting. Exactly one student has to be chosen for one activity. A student must not be selected for a particular activity if he or she definitely does not like it. Each student may like one or more activities.

The following statements identify their preferences for the different activities:

1. All those who like Dancing also like Singing. Aarav likes Dancing.
2. All those who like Drama also like Speech. Kavish likes Speech and does not like Mono-Acting and Singing.
3. All those who like Mono-Acting do not like Drama.
4. Some of those who like Mono-Acting also like Singing. Ayansh likes Singing.
5. Some of those who like Speech also like Mono-Acting. Meera likes Mono-Acting.
6. All those who like Speech also like Poem Reciting.
7. Kaiyra likes Drama and Avyukt likes Poem Reciting.
8. All those who like Dancing do not like Poem Reciting.
9. Ayansh does not like Drama and Kaiyra does not like Singing.

Here, Possible means, Kavish may or may not like Drama. Thus he must be chosen for one activity Reciting and Drama.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Aarav	Yes (Statement 1)	Yes (Statement 1)	No (Statement 1, 8, 6 & 2)	No (Statement 1, 8 & 6)	Possible (Statement 1 & 4)	No (Statement 1 & 8)

Aarav must be chosen for one activity among Singing, Dancing and Mono-Acting.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Kaiyra	No Statement 9	No Statement 7, 2, 6 & 8	Yes Statement 7	Yes Statement 7 & 2	No Statement 7 & 3	Yes Statement 7, 2 & 6

Kaiyra must be chosen for one of the activities among Drama, Speech & Poem Reciting.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Ayansh	Yes Statement 4	Possible Statement 4 & 1	No Statement 9	Possible Statement 4 & 5	Possible Statement 4	Possible Statement 4, 5 & 6

Ayansh may be selected for any of the activities except Drama. But he may like either Dancing or Speech & Poem Reciting. If he likes Dancing, he does not like both Speech & Poem Reciting.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Meera	Possible Statement 5 & 4	Possible Statement 5, 4 & 1	No Statement 5 & 3	Possible Statement 5	Yes Statement 5	Possible Statement 5 & 6

Meera may be chosen for any activity except Drama. . But she may like either Dancing or Speech & Poem Reciting. If she likes Dancing, she does not like both Speech & Poem Reciting.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Avyukt	Possible Statement 7, 6, 5 &4	No Statement 7 & 8	Possible Statement 7, 6 & 2	Possible Statement 7 & 6	Possible Statement 7, 6 & 5	Yes Statement 7

Avyukt may be selected for any activity except Dancing.

Final table of likings of all six students :

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Kavish	No	No	Possible	Yes	No	Yes
Aarav	Yes	Yes	No	No	Possible	No
Kaiyra	No	No	Yes	Yes	No	Yes
Ayansh	Yes	Possible	No	Possible	Possible	Possible
Meera	Possible	Possible	No	Possible	Yes	Possible
Avyukt	Possible	No	Possible	Possible	Possible	Yes

If Meera is selected for Dancing and Ayansh is selected for Singing; then Aarav must be selected for Mono Acting, since he may like maximum 3 activities; Dancing, Mono Acting and Singing.

Hence, [1].

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

Kavish, Aarav, Kaiyra, Ayansh, Meera and Avyukt are to be chosen for one among the following activities : Singing, Dancing, Drama, Speech, Mono-Acting and Poem reciting. Exactly one student has to be chosen for one activity. A student must not be selected for a particular activity if he or she definitely does not like it. Each student may like one or more activities.

The following statements identify their preferences for the different activities:

1. All those who like Dancing also like Singing. Aarav likes Dancing.
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3. All those who like Mono-Acting do not like Drama.
4. Some of those who like Mono-Acting also like Singing. Ayansh likes Singing.
5. Some of those who like Speech also like Mono-Acting. Meera likes Mono-Acting.
6. All those who like Speech also like Poem Reciting.
7. Kaiyra likes Drama and Avyukt likes Poem Reciting.
8. All those who like Dancing do not like Poem Reciting.
9. Ayansh does not like Drama and Kaiyra does not like Singing.

Time taken by you: **0 secs**

Avg Time taken by all students: **47 secs**

Your Attempt: **Skipped**

% Students got it correct: **28 %**

3) Aarav may be chosen for any of the followings, except

- Singing
- Drama
- Dancing
- Mono-Acting

Video Explanation:

Explanation:

The following tables can be made for likings of each student:

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Kavish	No (Statement 2)	No (Statements 2, 6 & 8)	Possible (Statement 2)	Yes (Statement 2)	No (Statement 2)	Yes (Statements 2 & 6)

Here, Possible means, Kavish may or may not like Drama. Thus, he must be chosen for one activity among Speech, Poem Reciting and Drama.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Aarav	Yes (Statement 1)	Yes (Statement 1)	No (Statement 1, 8, 6 & 2)	No (Statement 1, 8 & 6)	Possible (Statement 1 & 4)	No (Statement 1 & 8)

Aarav must be chosen for one activity among Singing, Dancing and Mono-Acting.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Kaiyra	No Statement 9	No Statement 7, 2, 6 & 8	Yes Statement 7	Yes Statement 7 & 2	No Statement 7 & 3	Yes Statement 7, 2 & 6

Kaiyra must be chosen for one of the activities among Drama, Speech & Poem Reciting.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Ayansh	Yes Statement 4	Possible Statement 4 & 1	No Statement 9	Possible Statement 4 & 5	Possible Statement 4	Possible Statement 4, 5 & 6

Ayansh may be selected for any of the activities except Drama. But he may like either Dancing or Speech & Poem Reciting. If he likes Dancing, he does not like both Speech & Poem Reciting.

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

Kavish, Aarav, Kaiyra, Ayansh, Meera and Avyukt are to be chosen for one among the following activities : Singing, Dancing, Drama, Speech, Mono-Acting and Poem reciting. Exactly one student has to be chosen for one activity. A student must not be selected for a particular activity if he or she definitely does not like it. Each student may like one or more activities.

The following statements identify their preferences for the different activities:

1. All those who like Dancing also like Singing. Aarav likes Dancing.
2. All those who like Drama also like Speech. Kavish likes Speech and does not like Mono-Acting and Singing.
3. All those who like Mono-Acting do not like Drama.
4. Some of those who like Mono-Acting also like Singing. Ayansh likes Singing.
5. Some of those who like Speech also like Mono-Acting. Meera likes Mono-Acting.
6. All those who like Speech also like Poem Reciting.
7. Kaiyra likes Drama and Avyukt likes Poem Reciting.
8. All those who like Dancing do not like Poem Reciting.
9. Ayansh does not like Drama and Kaiyra does not like Singing.

	Singing	Dancing	Drama			
	Possible	Possible	No	Possible	Yes	Possible
Meera	Statement 5 & 4	Statement 5, 4 & 1	Statement 5 & 3	Statement 5	Statement 5	Statement 5 & 6

Meera may be chosen for any activity except Drama. . But she may like either Dancing or Speech & Poem Reciting. If she likes Dancing, she does not like both Speech & Poem Reciting.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Avyukt	Possible Statement 7, 6, 5 &4	No Statement 7 & 8	Possible Statement 7, 6 & 2	Possible Statement 7 & 6	Possible Statement 7, 6 & 5	Yes Statement 7

Avyukt may be selected for any activity except Dancing.

Final table of likings of all six students :

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Kavish	No	No	Possible	Yes	No	Yes
Aarav	Yes	Yes	No	No	Possible	No
Kaiyra	No	No	Yes	Yes	No	Yes
Ayansh	Yes	Possible	No	Possible	Possible	Possible
Meera	Possible	Possible	No	Possible	Yes	Possible
Avyukt	Possible	No	Possible	Possible	Possible	Yes

Aarav may be chosen for Singing, Dancing and Mono-Acting. Hence, [2].

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **102 secs**

Your Attempt: **Skipped**

% Students got it correct: **81 %**

4) Which of the following statement is definitely false?

- Kaiyra is selected for Poem Reciting and Ayansh is selected for Speech.
- Meera is selected for Singing and Aarav is selected for Dancing.
- Meera is selected for Speech and Ayansh is selected for Poem Reciting.
- Ayansh is selected for Mono Acting and Kavish is selected for Speech.

Video Explanation:

Explanation:

The following tables can be made for likings of each student:

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

Kavish, Aarav, Kaiyra, Ayansh, Meera and Avyukt are to be chosen for one among the following activities : Singing, Dancing, Drama, Speech, Mono-Acting and Poem reciting. Exactly one student has to be chosen for one activity. A student must not be selected for a particular activity if he or she definitely does not like it. Each student may like one or more activities.

The following statements identify their preferences for the different activities:

1. All those who like Dancing also like Singing. Aarav likes Dancing.
2. All those who like Drama also like Speech. Kavish likes Speech and does not like Mono-Acting and Singing.
3. All those who like Mono-Acting do not like Drama.
4. Some of those who like Mono-Acting also like Singing. Ayansh likes Singing.
5. Some of those who like Speech also like Mono-Acting. Meera likes Mono-Acting.
6. All those who like Speech also like Poem Reciting.
7. Kaiyra likes Drama and Avyukt likes Poem Reciting.
8. All those who like Dancing do not like Poem Reciting.
9. Ayansh does not like Drama and Kaiyra does not like Singing.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Kavish	No (Statement 2)	No (Statements 2, 6 & 8)	Possible (Statement 2)	Yes (Statement 2)	No (Statement 2)	Yes (Statements 2 & 6)

Here, Possible means, Kavish may or may not like Drama. Thus, he must be chosen for one activity among Speech, Poem Reciting and Drama.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Aarav	Yes (Statement 1)	Yes (Statement 1)	No (Statement 1, 8, 6 & 2)	No (Statement 1, 8 & 6)	Possible (Statement 1 & 4)	No (Statement 1 & 8)

Aarav must be chosen for one activity among Singing, Dancing and Mono-Acting.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Kaiyra	No Statement 9	No Statement 7, 2, 6 & 8	Yes Statement 7	Yes Statement 7 & 2	No Statement 7 & 3	Yes Statement 7, 2 & 6

Kaiyra must be chosen for one of the activities among Drama, Speech & Poem Reciting.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Ayansh	Yes Statement 4	Possible Statement 4 & 1	No Statement 9	Possible Statement 4 & 5	Possible Statement 4	Possible Statement 4, 5 & 6

Ayansh may be selected for any of the activities except Drama. But he may like either Dancing or Speech & Poem Reciting. If he likes Dancing, he does not like both Speech & Poem Reciting.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Meera	Possible Statement 5 & 4	Possible Statement 5, 4 & 1	No Statement 5 & 3	Possible Statement 5	Yes Statement 5	Possible Statement 5 & 6

Meera may be chosen for any activity except Drama. . But she may like either Dancing or Speech & Poem Reciting. If she likes Dancing, she does not like both Speech & Poem Reciting.

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Avyukt	Possible Statement 7, 6, 5 &4	No Statement 7 & 8	Possible Statement 7, 6 & 2	Possible Statement 7 & 6	Possible Statement 7, 6 & 5	Yes Statement 7

Avyukt may be selected for any activity except Dancing.

Final table of likings of all six students :

	Singing	Dancing	Drama	Speech	Mono-Acting	Poem Reciting
Kavish	No	No	Possible	Yes	No	Yes
Aarav	Yes	Yes	No	No	Possible	No
Kaiyra	No	No	Yes	Yes	No	Yes
Ayansh	Yes	Possible	No	Possible	Possible	Possible
Meera	Possible	Possible	No	Possible	Yes	Possible
Avyukt	Possible	No	Possible	Possible	Possible	Yes

Hence, [3].

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

Kavish, Aarav, Kaiyra, Ayansh, Meera and Avyukt are to be chosen for one among the following activities : Singing, Dancing, Drama, Speech, Mono-Acting and Poem reciting. Exactly one student has to be chosen for one activity. A student must not be selected for a particular activity if he or she definitely does not like it. Each student may like one or more activities.

The following statements identify their preferences for the different activities:

1. All those who like Dancing also like Singing. Aarav likes Dancing.
2. All those who like Drama also like Speech. Kavish likes Speech and does not like Mono-Acting and Singing.
3. All those who like Mono-Acting do not like Drama.
4. Some of those who like Mono-Acting also like Singing. Ayansh likes Singing.
5. Some of those who like Speech also like Mono-Acting. Meera likes Mono-Acting.
6. All those who like Speech also like Poem Reciting.
7. Kaiyra likes Drama and Avyukt likes Poem Reciting.
8. All those who like Dancing do not like Poem Reciting.
9. Ayansh does not like Drama and Kaiyra does not like Singing.

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Time taken by you: **0 secs**

Avg Time taken by all students: **85 secs**

Your Attempt: **Skipped**

% Students got it correct: **52 %**

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

Eight people sit in a circular arrangement (equidistant from each other) facing the center of the circular table wearing shoes of one of the three colors viz. Black, Brown or Blue. Following conditions about their seating arrangement is given:

1. Saurav and Suresh do not sit opposite or adjacent to each other.
2. Salil sits second to the left of Shravan who in turn sits to the immediate right of Sushil.
3. Suneet and Sanket have exactly two people between them but Saurav is not one of them.
4. Suneet sits next to Shravan, but not next to Sudhir.
5. No two adjacent people wear same coloured shoes.
6. Person opposite Sudhir wears Black shoes.
7. Saurav, Sanket and Suresh do not wear Brown shoes.
8. Exactly three people wear Brown shoes.
9. Sanket does not sit opposite a person wearing Blue shoes.

1) Who sits opposite Suneet?

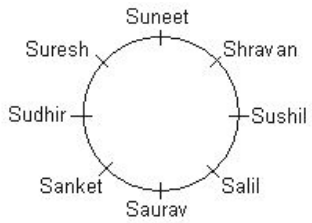
- Sushil
- Saurav ✓
- Sudhir
- Salil

Video Explanation:

Explanation:

Let the position at which Salil sits is position 1. Also assume that position 2 is on Salil's right and so on.

Now from statement 2, Sushil and Shravan are at positions 2 and 3 respectively. From statement 4, Suneet must be at position 4. Therefore, from statement 3, Sanket must be at position 7 and Saurav at position 8. From statement 4, Sudhir must be at position 6 and Suresh at position 5.



From statement 6, Sushil wears Black shoes. Therefore, Shravan and Salil do not wear Black shoes. Sanket sits opposite to Shravan. So, from statement 9, Shravan does not wear Blue shoes. Therefore, Shravan wears Brown shoes. From statement 5, Suneet does not wear Brown shoes. Now from statements 7 and 8, it can be concluded that Salil and Sudhir wear Brown shoes.

Person	Salil	Sushil	Shravan	Suneet	Suresh	Sudhir	Sanket	Saurav
Shoe Colour	Brown	Black	Brown	Black/Blue	Blue/Black	Brown	Blue/Black	Black/Blue
Position	1	2	3	4	5	6	7	8

Saurav sits opposite Suneet. Hence, [2].

Correct Answer:

Time taken by you: **42 secs**

Avg Time taken by all students: **476 secs**

Your Attempt: **Correct**

% Students got it correct: **88 %**

2) At least how many people sit between Sudhir and Sushil?

- 3 ✓
- 4
- 2
- 1

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

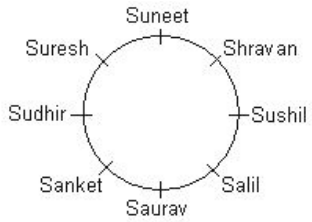
Eight people sit in a circular arrangement (equidistant from each other) facing the center of the circular table wearing shoes of one of the three colors viz. Black, Brown or Blue. Following conditions about their seating arrangement is given:

1. Saurav and Suresh do not sit opposite or adjacent to each other.
2. Salil sits second to the left of Shravan who in turn sits to the immediate right of Sushil.
3. Suneet and Sanket have exactly two people between them but Saurav is not one of them.
4. Suneet sits next to Shravan, but not next to Sudhir.
5. No two adjacent people wear same coloured shoes.
6. Person opposite Sudhir wears Black shoes.
7. Saurav, Sanket and Suresh do not wear Brown shoes.
8. Exactly three people wear Brown shoes.
9. Sanket does not sit opposite a person wearing Blue shoes.

Explanation:

Let the position at which Salil sits is position 1. Also assume that position 2 is on Salil's right and so on.

Now from statement 2, Sushil and Shravan are at positions 2 and 3 respectively. From statement 4, Suneet must be at position 4. Therefore, from statement 3, Sanket must be at position 7 and Saurav at position 8. From statement 4, Sudhir must be at position 6 and Suresh at position 5.



From statement 6, Sushil wears Black shoes. Therefore, Shravan and Salil do not wear Black shoes. Sanket sits opposite to Shravan. So, from statement 9, Shravan does not wear Blue shoes. Therefore, Shravan wears Brown shoes. From statement 5, Suneet does not wear Brown shoes. Now from statements 7 and 8, it can be concluded that Salil and Sudhir wear Brown shoes.

Person	Salil	Sushil	Shravan	Suneet	Suresh	Sudhir	Sanket	Saurav
Shoe Colour	Brown	Black	Brown	Black/Blue	Blue/Black	Brown	Blue/Black	Black/Blue
Position	1	2	3	4	5	6	7	8

Exactly 3 people sit between Sudhir and Sushil. Hence, [1].

Correct Answer:

Time taken by you: **1384 secs**

Avg Time taken by all students: **30 secs**

Your Attempt: **Correct**

% Students got it correct: **79 %**

3) If exactly two people wear Blue shoes and Sanket is one of them then who is the other person?

- Suneet
- Shravan
- Suresh
- Cannot be determined ✔

Video Explanation:

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

Eight people sit in a circular arrangement (equidistant from each other) facing the center of the circular table wearing shoes of one of the three colors viz. Black, Brown or Blue. Following conditions about their seating arrangement is given:

1. Saurav and Suresh do not sit opposite or adjacent to each other.
2. Salil sits second to the left of Shravan who in turn sits to the immediate right of Sushil.
3. Suneet and Sanket have exactly two people between them but Saurav is not one of them.
4. Suneet sits next to Shravan, but not next to Sudhir.
5. No two adjacent people wear same coloured shoes.
6. Person opposite Sudhir wears Black shoes.
7. Saurav, Sanket and Suresh do not wear Brown shoes.
8. Exactly three people wear Brown shoes.
9. Sanket does not sit opposite a person wearing Blue shoes.

Explanation:

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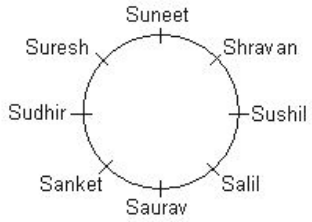
Let the position at which Salil sits is position 1. Also assume that position 2 is on Salil's right and so on.

Now from statement 2, Sushil and Shravan are at positions 2 and 3 respectively. From statement 4, Suneet must be at position 4. Therefore, from statement 3, Sanket must be at position 7 and Saurav at position 8. From statement 4, Sudhir must be at position 6 and Suresh at position 5.



From statement 6, Sushil wears Black shoes. Therefore, Shravan and Salil do not wear Black shoes. Sanket sits opposite to Shravan. So, from statement 9, Shravan does not wear Blue shoes. Therefore, Shravan wears Brown shoes. From statement 5, Suneet does not wear Brown shoes. Now from statements 7 and 8, it can be concluded that Salil and Sudhir wear Brown shoes.

Person	Salil	Sushil	Shravan	Suneet	Suresh	Sudhir	Sanket	Saurav
Shoe Colour	Brown	Black	Brown	Black/Blue	Blue/Black	Brown	Blue/Black	Black/Blue
Position	1	2	3	4	5	6	7	8

If Sanket wears Blue shoes then Saurav wears Black. But either of Suneet or Suresh can wear the other Blue shoe. Hence, [4].

Correct Answer:

Time taken by you: **32 secs**

Avg Time taken by all students: **110 secs**

Your Attempt: **Correct**

% Students got it correct: **70 %**

4) At least how many people definitely wear Black shoes?

- 2
- 1
- 3 ✓
- 4

Video Explanation:

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

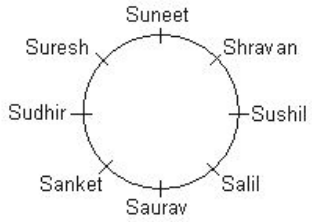
Eight people sit in a circular arrangement (equidistant from each other) facing the center of the circular table wearing shoes of one of the three colors viz. Black, Brown or Blue. Following conditions about their seating arrangement is given:

1. Saurav and Suresh do not sit opposite or adjacent to each other.
2. Salil sits second to the left of Shravan who in turn sits to the immediate right of Sushil.
3. Suneet and Sanket have exactly two people between them but Saurav is not one of them.
4. Suneet sits next to Shravan, but not next to Sudhir.
5. No two adjacent people wear same coloured shoes.
6. Person opposite Sudhir wears Black shoes.
7. Saurav, Sanket and Suresh do not wear Brown shoes.
8. Exactly three people wear Brown shoes.
9. Sanket does not sit opposite a person wearing Blue shoes.

Explanation:

Let the position at which Salil sits is position 1. Also assume that position 2 is on Salil's right and so on.

Now from statement 2, Sushil and Shravan are at positions 2 and 3 respectively. From statement 4, Suneet must be at position 4. Therefore, from statement 3, Sanket must be at position 7 and Saurav at position 8. From statement 4, Sudhir must be at position 6 and Suresh at position 5.



From statement 6, Sushil wears Black shoes. Therefore, Shravan and Salil do not wear Black shoes. Sanket sits opposite to Shravan. So, from statement 9, Shravan does not wear Blue shoes. Therefore, Shravan wears Brown shoes. From statement 5, Suneet does not wear Brown shoes. Now from statements 7 and 8, it can be concluded that Salil and Sudhir wear Brown shoes.

Person	Salil	Sushil	Shravan	Suneet	Suresh	Sudhir	Sanket	Saurav
Shoe Colour	Brown	Black	Brown	Black/Blue	Blue/Black	Brown	Blue/Black	Black/Blue
Position	1	2	3	4	5	6	7	8

Either Sanket or Saurav wears Black shoes. Similarly, either of Suresh or Suneet wears Black shoes. So, at least 3 people definitely wear Black shoes. Hence, [3].

Correct Answer:

Time taken by you: **11 secs**

Avg Time taken by all students: **65 secs**

Your Attempt: **Correct**

% Students got it correct: **56 %**

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