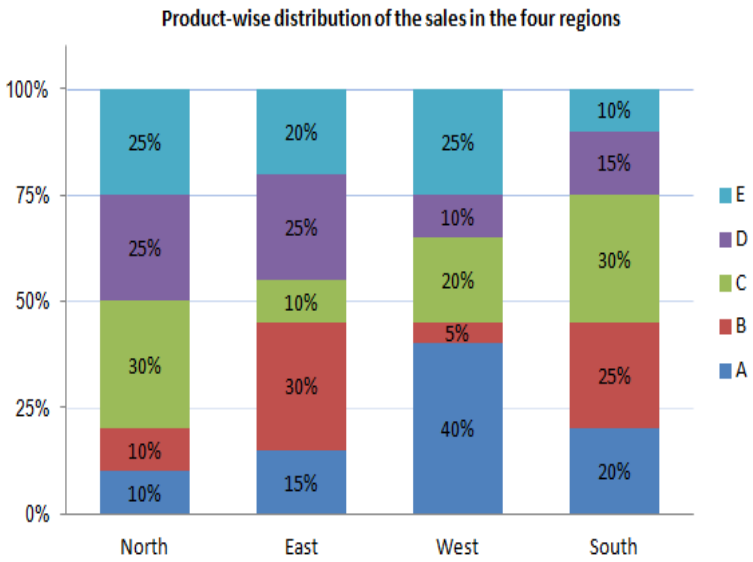
Refer to the data below and answer the questions that follow.

SkillSoft Ltd is a Mumbai based company that supplies various software products to Banks and Financial Institutions. The company supplies total five products, named A, B, C, D and E in the four regions of the country, named North, East, West and South.

The following graph shows the product-wise distribution of the sales in the four regions in 2019 (in terms of the number of units of the product sold)



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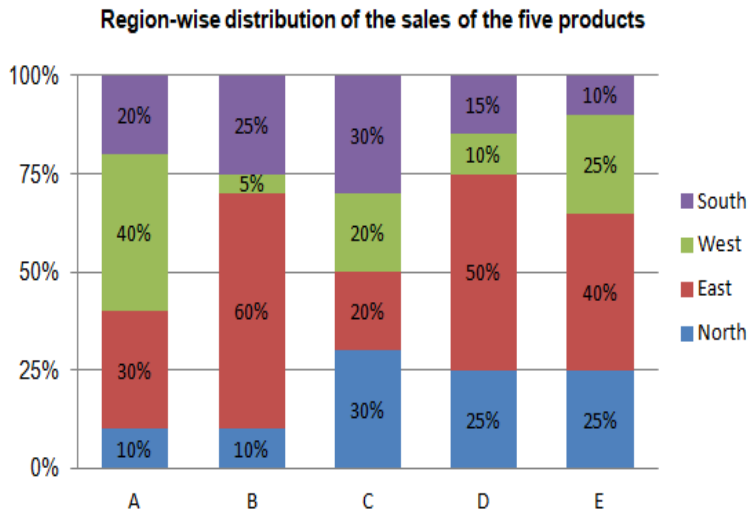

Previous Next Exit Review

1) What is the ratio of the total sales in East, West, North and South regions?

- 2 : 1 : 1 : 1
- 1 : 2 : 1 : 1 ✗
- 1 : 1 : 1 : 2
- 1 : 1 : 2 : 1

Video Explanation:

Explanation:

Suppose the sales of the product A = 200x units. Therefore, from graph 2, the sales of product A from the North = 10% of 200x = 20x units. It can be seen from graph 1 that the 10% sales in the North is from product A.

Therefore, the sales in the North = $\frac{20x}{0.1}$ = 200 units.

On similar lines, we can generate the following table:

	North	East	West	South	Total
A	20x	60x	80x	40x	200x
B	20x	120x	10x	50x	200x
C	60x	40x	40x	60x	200x
D	50x	100x	20x	30x	200x
E	50x	80x	50x	20x	200x
Total	200x	400x	200x	200x	1000x

The required ratio = 400x : 200x : 200x : 200x = 2 : 1 : 1 : 1. Hence, [1].

Correct Answer:

Time taken by you: **253 secs**

Avg Time taken by all students: **297 secs**

Your Attempt: **Wrong**

% Students got it correct: **74 %**

2) What is the ratio of the sales of product A in West to the sales of product D in North?

- 4 : 5
- 16 : 5
- 8 : 5 ✓
- 2 : 5

Video Explanation:

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

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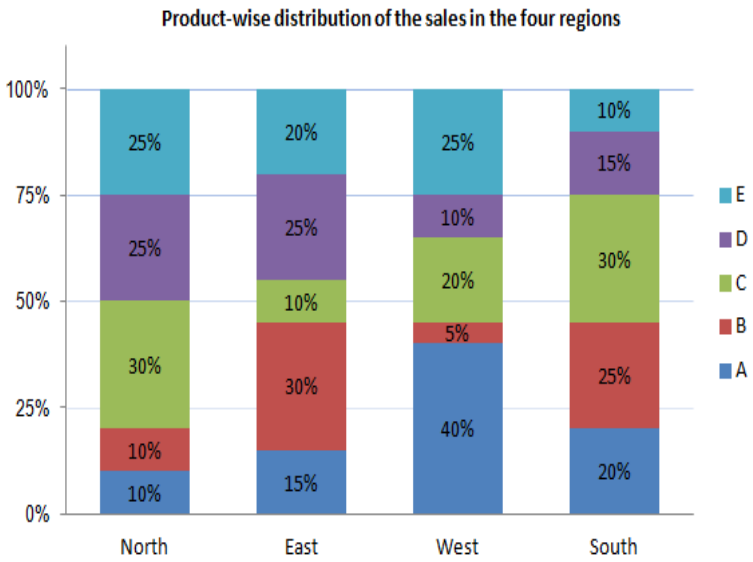

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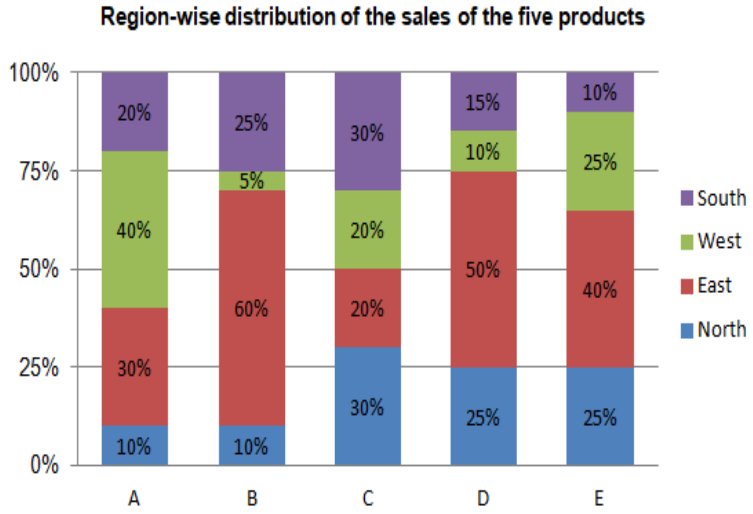

Previous Next Exit Review

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D	50x	100x	20x	30x	200x
E	50x	80x	50x	20x	200x
Total	200x	400x	200x	200x	1000x

The required ratio = 80x : 50x = 8 : 5. Hence, [3].

Correct Answer:

Time taken by you: **406 secs**

Avg Time taken by all students: **135 secs**

Your Attempt: **Correct**

% Students got it correct: **94 %**

3) Total sales from how many of the four regions should be known to us in order to determine the sales of all the five products in all the four regions?

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

1

Video Explanation:

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

SkillSoft Ltd is a Mumbai based company that supplies various software products to Banks and Financial Institutions. The company supplies total five products, named A, B, C, D and E in the four regions of the country, named North, East, West and South.

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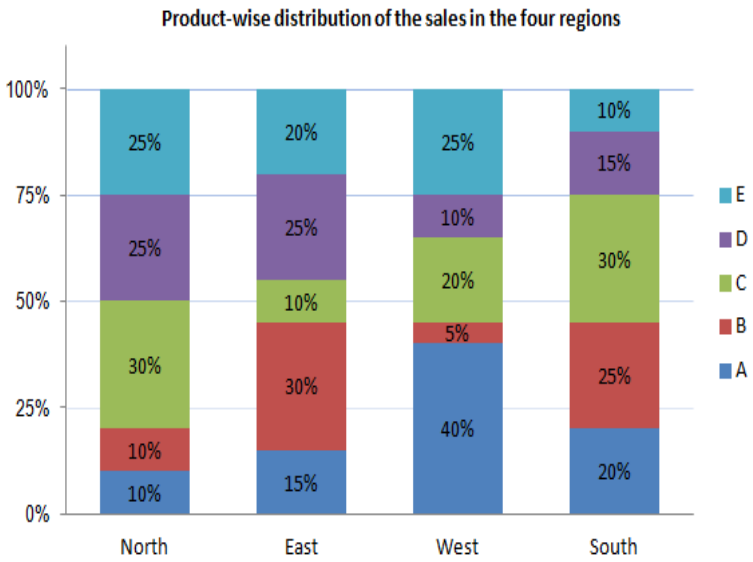

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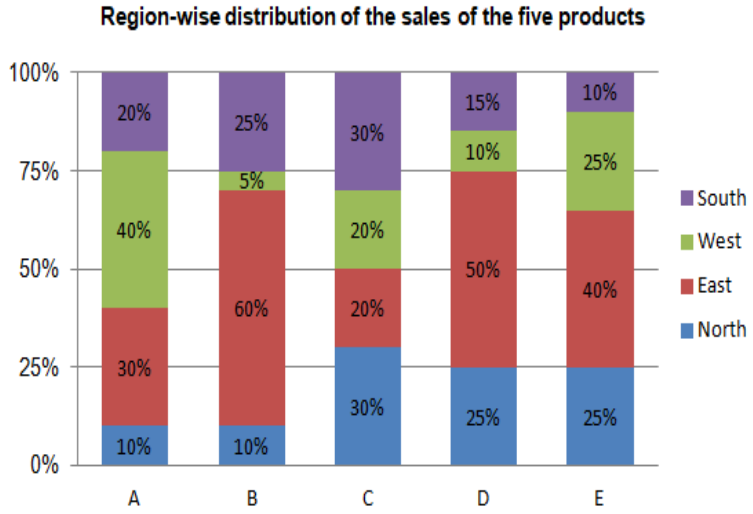

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D	50x	100x	20x	30x	200x
E	50x	80x	50x	20x	200x
Total	200x	400x	200x	200x	1000x

It can be seen that if we know the total sales in any one region, we can calculate the sales numbers of all the products in all the regions.

Therefore the required answer is 1.

Correct Answer:

Time taken by you: **19 secs**

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

Your Attempt: **Correct**

% Students got it correct: **53 %**

4) Suppose in 2020, the sales of the North, East, West and South regions register a growth of 50%, 25%, 60% and 80% respectively over their corresponding numbers in 2019, by what percent will the total sales of the company in the country increase in 2020 over the sales in 2019?

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

60 *%*

Video Explanation:

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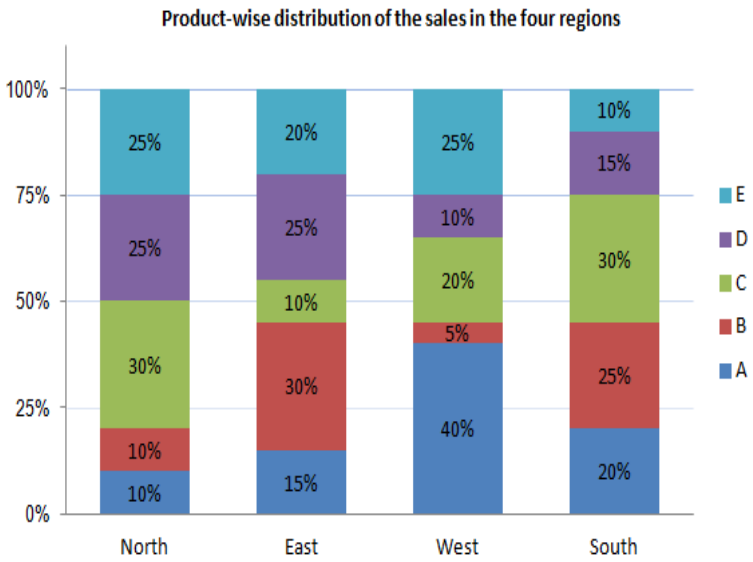

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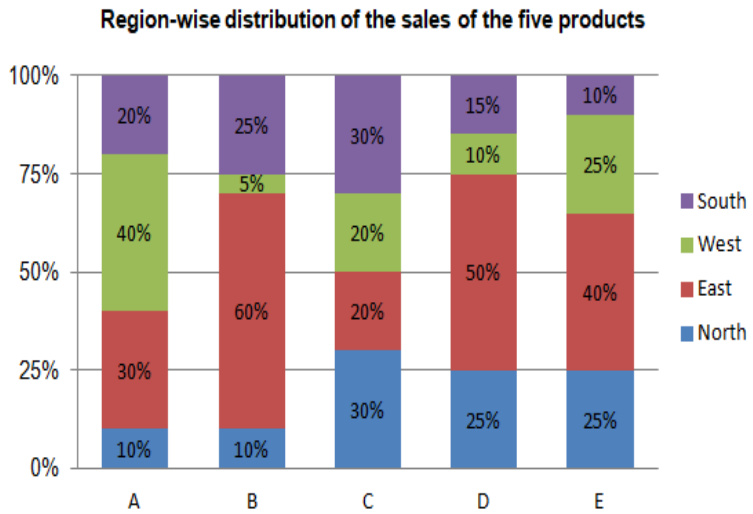

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D	50x	100x	20x	30x	200x
E	50x	80x	50x	20x	200x
Total	200x	400x	200x	200x	1000x

We have the following:

	North	East	West	South	Total
2019	200x	400x	200x	200x	1000x
2020	300x	500x	320x	360x	1480x

Therefore the total increase in the sales = 48%.

Therefore, the required answer is 48.

Correct Answer:

Time taken by you: **139 secs**

Avg Time taken by all students: **51 secs**

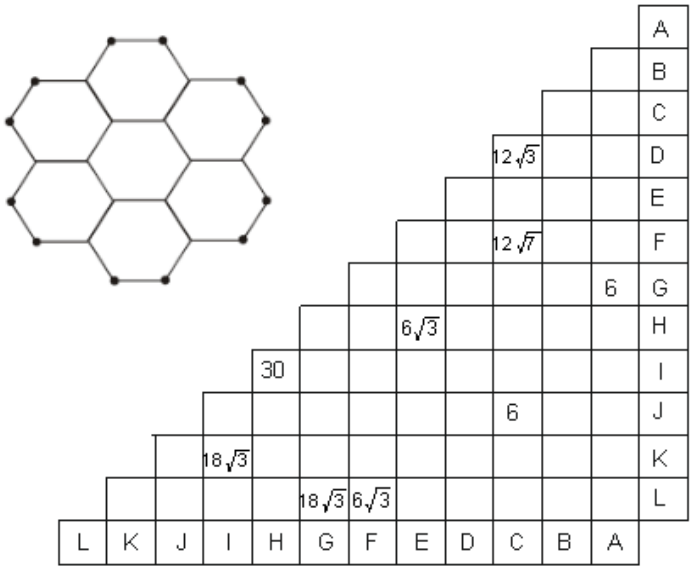
Your Attempt: **Wrong**

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

Loading...

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

12 cities A, B, C, D, E, F, G, H, I, J, K and L are situated at the outer corners of a regular hexagonal mesh as shown. Note that the cities are only at positions marked by dots. The shortest distances between cities are indicated in the adjoining chart. The shortest distance between two cities is the length of the straight path between them. All distances are in kilometers.

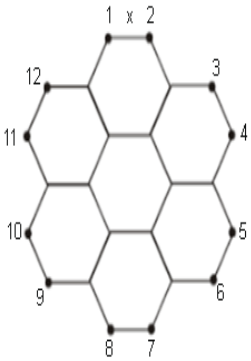


1) Along the mesh, the neighbouring cities of city K are:

- G and E
- C and I
- B and F
- E and H

Video Explanation:

Explanation:



Let d(1, 2) = x
d(2, 3) = $\sqrt{3}$x
then, d(2, 7) = 3 x $\sqrt{3}$x = 3$\sqrt{3}$x
d(12, 9) = 2 x $\sqrt{3}$x = 2$\sqrt{3}$x
d(2, 9) = 2x + x + 2x = 5x

The distances in the chart are 6, 12$\sqrt{3}$, 18$\sqrt{3}$ and 30.
It can be seen that the distances 12$\sqrt{3}$, 18$\sqrt{3}$ and 30 can be obtained in the hexagonal grid only if x = 6.

Now, d(A, G) = 6.
Let A be at point 1 and G be at point 2.

d(G, L) = 18$\sqrt{3}$ ∴ L is at point 7.
d(L, F) = 6$\sqrt{3}$ ∴ F is at point 6.
d(F, C) = 12$\sqrt{7}$

Points 11, 12, 5 and 6 form a rectangle of length = 18$\sqrt{3}$ km and breadth = 6 km.

∴ The length of the diagonal of the rectangle

$$= \sqrt{(18\sqrt{3})^2 + (6)^2} = \sqrt{1008} = 12\sqrt{7} \text{ km}$$

Thus, we can place city C at point 12.

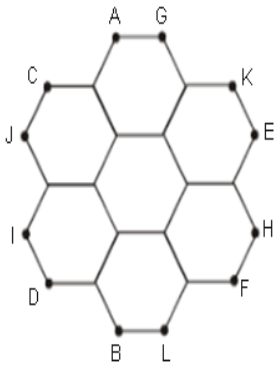
d(C, J) = 6 ∴ J is at point 11.
d(C, D) = 12$\sqrt{3}$ ∴ D is at point 9.
d(E, H) = 6$\sqrt{3}$ ∴ E and H must be at points 4 and 5 (in any order).
d(I, H) = 30 ∴ H must be at point 5 and I must be at point 10.

Thus, E is at point 4.

$d(K, I) = 18\sqrt{3}$ ∴ K is at point 3.

The remaining city B has to be at point 8.

Thus we have,



G and E are the neighbouring cities of city K. Hence, [1].

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **59 secs**

Your Attempt: **Skipped**

% Students got it correct: **35 %**

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

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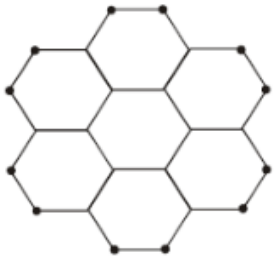

	L	K	J	I	H	G	F	E	D	C	B	A
A												
B												
C												
D										$12\sqrt{3}$		
E												
F										$12\sqrt{7}$		
G												6
H								$6\sqrt{3}$				
I					30							
J										6		
K				$18\sqrt{3}$								
L						$18\sqrt{3}$	$6\sqrt{3}$					

2) The shortest distance between city I and city D is (in km): _

- 6
- $6\sqrt{3}$
- $12\sqrt{3}$
- $12\sqrt{7}$

Video Explanation:

Explanation:

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

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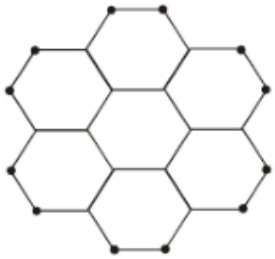
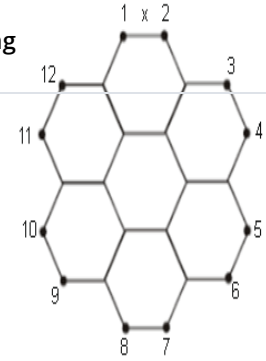


	L	K	J	I	H	G	F	E	D	C	B	A
A												
B												
C												
D										$12\sqrt{3}$		
E												
F										$12\sqrt{7}$		
G											6	
H								$6\sqrt{3}$				
I					30							
J										6		
K				$18\sqrt{3}$								
L						$18\sqrt{3}$	$6\sqrt{3}$					



Let d(1, 2) = x
d(2, 3) = $\sqrt{3}$x
then, d(2, 7) = 3 x $\sqrt{3}$x = 3$\sqrt{3}$x
d(12, 9) = 2 x $\sqrt{3}$x = 2$\sqrt{3}$x
d(2, 9) = 2x + x + 2x = 5x

The distances in the chart are 6, $12\sqrt{3}$, $18\sqrt{3}$ and 30.
It can be seen that the distances $12\sqrt{3}$, $18\sqrt{3}$ and 30 can be obtained in the hexagonal grid only if x = 6.

Now, d(A, G) = 6.
Let A be at point 1 and G be at point 2.

d(G, L) = $18\sqrt{3}$ ∴ L is at point 7.
d(L, F) = $6\sqrt{3}$ ∴ F is at point 6.
d(F, C) = $12\sqrt{7}$

Points 11, 12, 5 and 6 form a rectangle of length = $18\sqrt{3}$ km and breadth = 6 km.

∴ The length of the diagonal of the rectangle

$$= \sqrt{(18\sqrt{3})^2 + (6)^2} = \sqrt{1008} = 12\sqrt{7} \text{ km}$$

Thus, we can place city C at point 12.

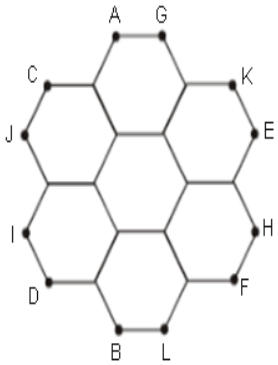
d(C, J) = 6 ∴ J is at point 11.
d(C, D) = $12\sqrt{3}$ ∴ D is at point 9.
d(E, H) = $6\sqrt{3}$ ∴ E and H must be at points 4 and 5 (in any order).
d(I, H) = 30 ∴ H must be at point 5 and I must be at point 10.

Thus, E is at point 4.

d(K, I) = $18\sqrt{3}$ ∴ K is at point 3.

The remaining city B has to be at point 8.

Thus we have,



The distance between city I and city D = 6 km. Hence, [1].

Correct Answer: ⌄

Time taken by you: **0 secs**

Change Section here

Avg Time taken by all students: **209 secs**

Your Attempt: **Skipped**

% Students got it correct: **58 %**

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

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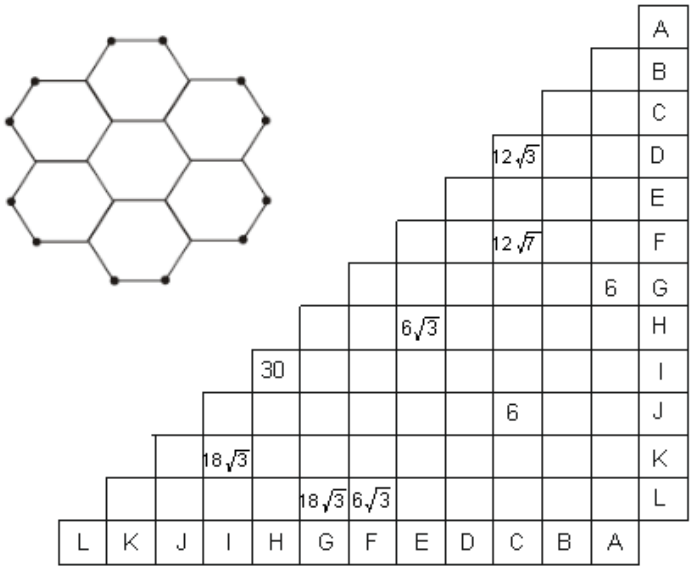
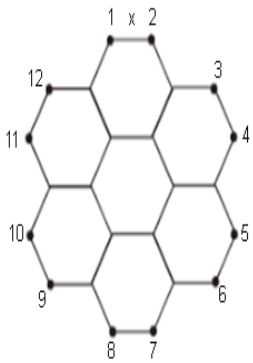


3) Find the shortest distance between city A and city F (in km).

- 6
- $6\sqrt{3}$
- 30
- $12\sqrt{3}$

Video Explanation:

Explanation:



Let d(1, 2) = x
d(2, 3) = $\sqrt{3}$x
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The distances in the chart are 6, $12\sqrt{3}$, $18\sqrt{3}$ and 30.
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Let A be at point 1 and G be at point 2.

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Points 11, 12, 5 and 6 form a rectangle of length = $18\sqrt{3}$ km and breadth = 6 km.

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

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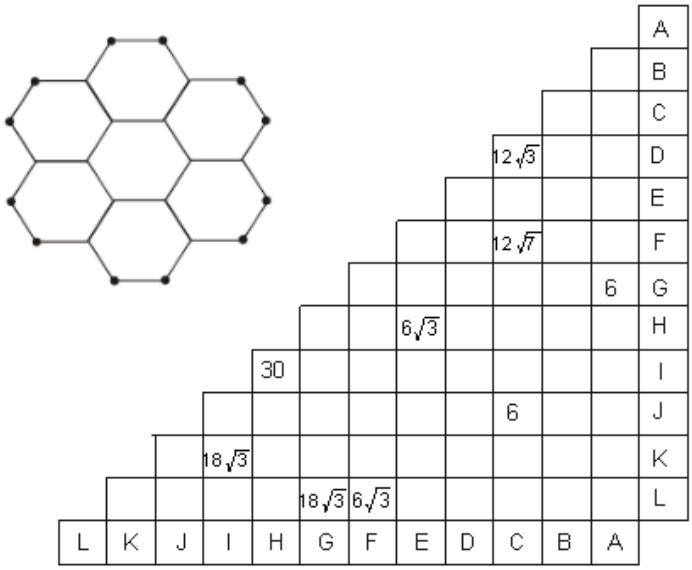


∴ The length of the diagonal of the rectangle

$= \sqrt{(18\sqrt{3})^2 + (6)^2} = \sqrt{1008} = 12\sqrt{7}$ km

Thus, we can place city C at point 12.

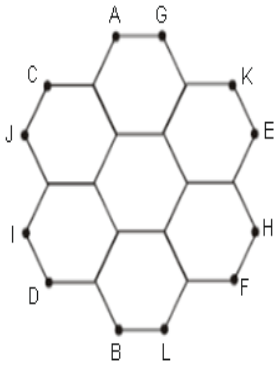
d(C, J) = 6 ∴ J is at point 11.
d(C, D) = $12\sqrt{3}$ ∴ D is at point 9.
d(E, H) = $6\sqrt{3}$ ∴ E and H must be at points 4 and 5 (in any order).
d(I, H) = 30 ∴ H must be at point 5 and I must be at point 10.

Thus, E is at point 4.

d(K, I) = $18\sqrt{3}$ ∴ K is at point 3.

The remaining city B has to be at point 8.

Thus we have,



The distance between cities A and F is 30 km. Hence, [3].

Correct Answer: ⌄

Time taken by you: **0 secs**

Avg Time taken by all students: **36 secs**

Your Attempt: **Skipped**

% Students got it correct: **35 %**

4) The shortest distance between cities H and K is the same as the shortest distance between cities:

- C and D
- B and G
- I and B
- A and L

Video Explanation: ⌄

Explanation: ⌄

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

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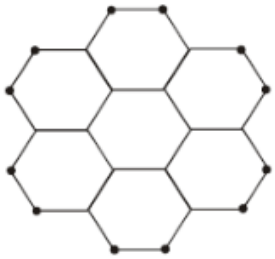

	L	K	J	I	H	G	F	E	D	C	B	A
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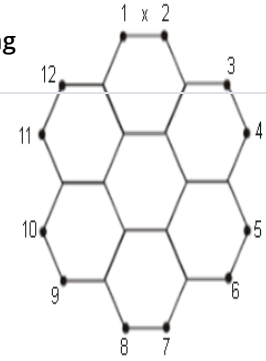
B												
C												
D										$12\sqrt{3}$		
E												
F										$12\sqrt{7}$		
G												6
H								$6\sqrt{3}$				
I					30							
J										6		
K				$18\sqrt{3}$								
L						$18\sqrt{3}$	$6\sqrt{3}$					



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d(12, 9) = 2 x $\sqrt{3}$x = 2$\sqrt{3}$x
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Points 11, 12, 5 and 6 form a rectangle of length = $18\sqrt{3}$ km and breadth = 6 km.

∴ The length of the diagonal of the rectangle

$$= \sqrt{(18\sqrt{3})^2 + (6)^2} = \sqrt{1008} = 12\sqrt{7} \text{ km}$$

Thus, we can place city C at point 12.

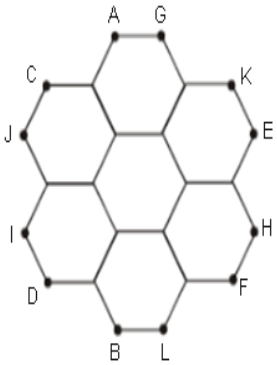
d(C, J) = 6 ∴ J is at point 11.
d(C, D) = $12\sqrt{3}$ ∴ D is at point 9.
d(E, H) = $6\sqrt{3}$ ∴ E and H must be at points 4 and 5 (in any order).
d(I, H) = 30 ∴ H must be at point 5 and I must be at point 10.

Thus, E is at point 4.

d(K, I) = $18\sqrt{3}$ ∴ K is at point 3.

The remaining city B has to be at point 8.

Thus we have,

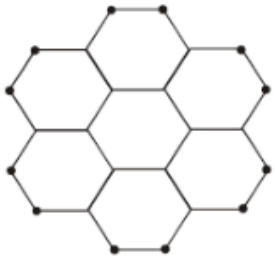


The distance between cities H and K is the same as the distance between cities I and B.

Hence, [3].

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

12 cities A, B, C, D, E, F, G, H, I, J, K and L are situated at the outer corners of a regular hexagonal mesh as shown. Note that the cities are only at positions marked by dots. The shortest distances between cities are indicated in the adjoining chart. The shortest distance between two cities is the length of the straight path between them. All distances are in kilometers.



	L	K	J	I	H	G	F	E	D	C	B	A
A												
B												
C												
D										$12\sqrt{3}$		
E												
F										$12\sqrt{7}$		
G												6
H								$6\sqrt{3}$				
I					30							
J										6		
K				$18\sqrt{3}$								
L						$18\sqrt{3}$	$6\sqrt{3}$					

Time taken by you: **0 secs**

Avg Time taken by all students: **45 secs**

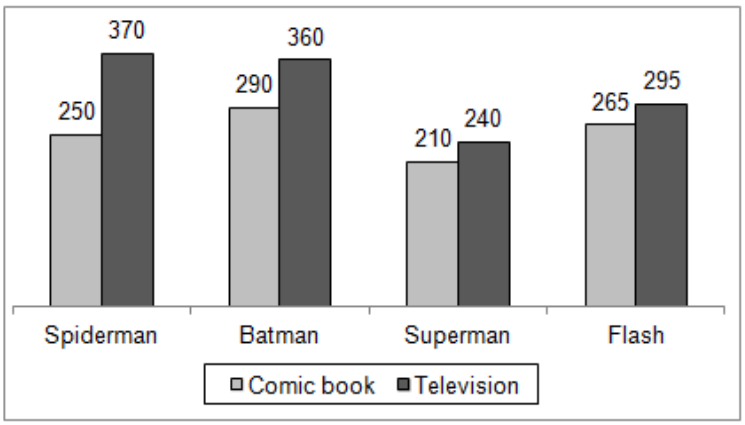
Your Attempt: **Skipped**

% Students got it correct: **48 %**

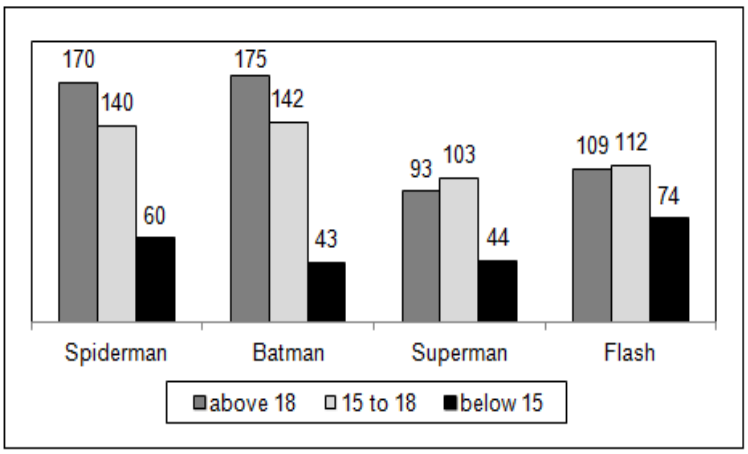
ing...

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

The following graph shows the number of fans who read comic books and/or watch TV shows of different superheroes.



Those who watch the superheroes' TV shows are further divided into three groups on the basis of their ages; below 15, 15 to 18 and above 18, as shown below.



No two superheroes have common fans.

1) What is the approximate probability that a kid picked from TV show fans is below 18 and likes Batman or Superman?

- 0.28
- 0.26 ✓
- 0.22
- 0.19

Video Explanation:

Explanation:

Total number of TV show fans = 1265

Taking the numbers of fans of different superheroes below 18 (i.e., (below 15) and (15 to 18)):

Fans of Batman = 142 + 43 = 185

Fans of Superman = 103 + 44 = 147

Fans of Batman and Superman = 185 + 147 = 332

∴ Probability of the kid being below 18 and being a fan of Batman or Superman

$= \frac{332}{1265} = 0.26$

Hence, [2].

Correct Answer:

Time taken by you: **172 secs**

Avg Time taken by all students: **287 secs**

Your Attempt: **Correct**

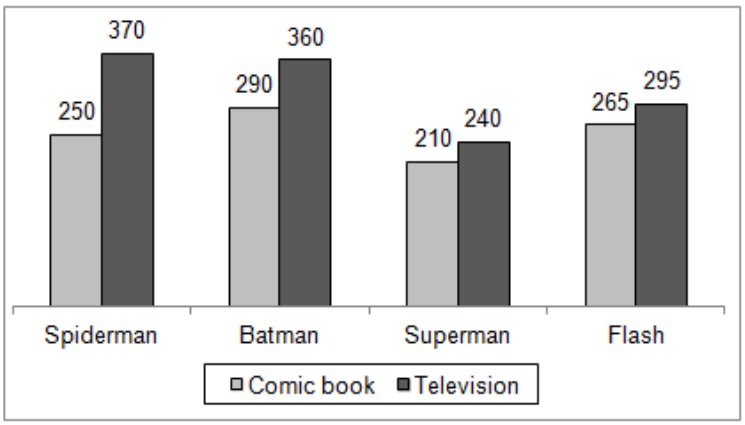
% Students got it correct: **71 %**

2) If it is known that 573 people like Batman, how many people like Batman TV shows as well as comic books?

- 70
- 77
- 148
- 213 ✗

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

The following graph shows the number of fans who read comic books and/or watch TV shows of different superheroes.



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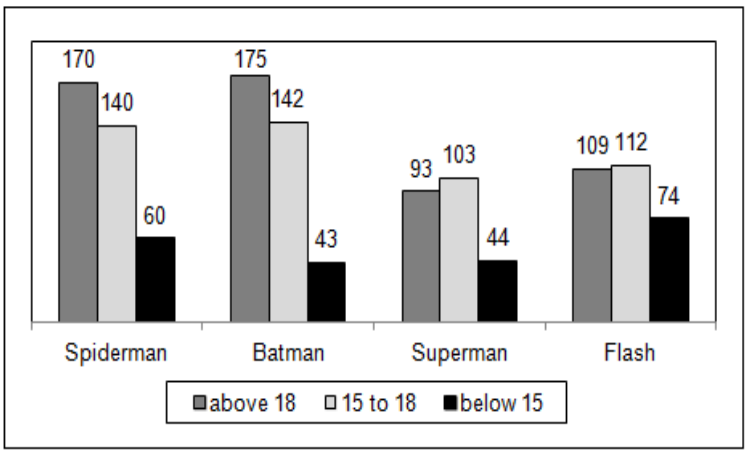


No two superheroes have common fans.

Video Explanation: Change Section here

Explanation:

Let number of people who only like Batman comic books be n (A) and number of people who only like batman TV show be n (B) and the number of people who like both Batman comic books and TV shows be n (A ∩ B). Then number of Batman fans = n (A ∪ B)

Given number of people who like comic books = n (A) + n (A ∩ B) = 290

Given number of people who like TV shows = n (B) + n (A ∩ B) = 360

Given number of people who like Batman = n (A ∪ B) = 573

Hence, number of people who like comic books and TV shows = n (A ∩ B)

= 290 + 360 − 573 = 77

Hence, [2].

Correct Answer:

Time taken by you: **162 secs**

Avg Time taken by all students: **152 secs**

Your Attempt: **Wrong**

% Students got it correct: **87 %**

3) What percentage of the fans who watch television shows of the superheroes are at least 15 years old?

- 88.06%
- 82.53% ✓
- 81.67%
- 83.78%

Video Explanation:

Explanation:

$$\text{Required answer} = \frac{(170+140)+(175+142)+(93+103)+(109+112)}{370+360+240+295} = 82.53\%$$

Hence, [2].

Correct Answer:

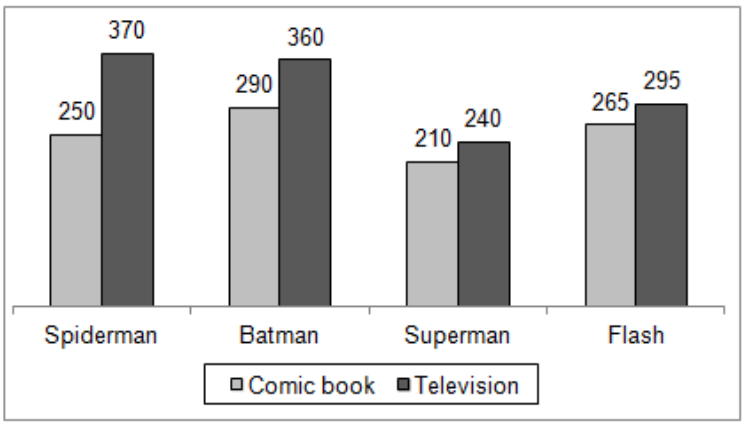
Time taken by you: **89 secs**

Avg Time taken by all students: **149 secs**

Your Attempt: **Correct**

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

The following graph shows the number of fans who read comic books and/or watch TV shows of different superheroes.



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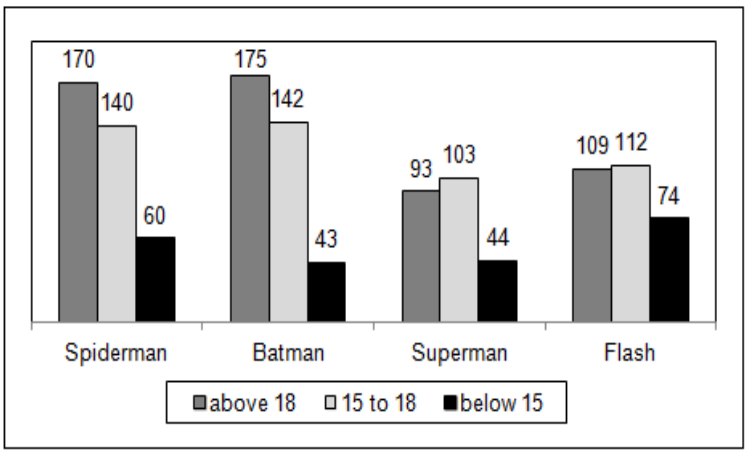


No two superheroes have common fans.

4) 'x' Superman comic book fans convert to Spiderman comic book fans, 'y' to Batman comic book fans and 'z' to Flash comic book fans. Given that 'x', 'y' and 'z' are in AP and that the decrease in the number of superman comic book fans is

$\frac{3}{145}$ of the total comic book fans.

What is the ratio of the increase in the number of Batman comic book fans to the total number of comic book fans?

- 3 : 145
- 7 : 650
- 1 : 145 ✔
- 7 : 290

Video Explanation:

Explanation:

Given that the decrease in the number of superman comic book fans is $\frac{3}{145}$ of the total comic book fans, we have decrease in number of Superman fans

$= \frac{3}{145} \times 1015 = 21.$

Total decrease = x + y + z

Since x, y and z are in AP we have 2y = x + z

x + y + z = 21.

Therefore, 3y = 21

y = 7 = increase in the number of Batman fans.

Therefore, the required ratio = 7 : 1015 = 1 : 145

Hence, [3].

Correct Answer:

Time taken by you: **339 secs**

Avg Time taken by all students: **219 secs**

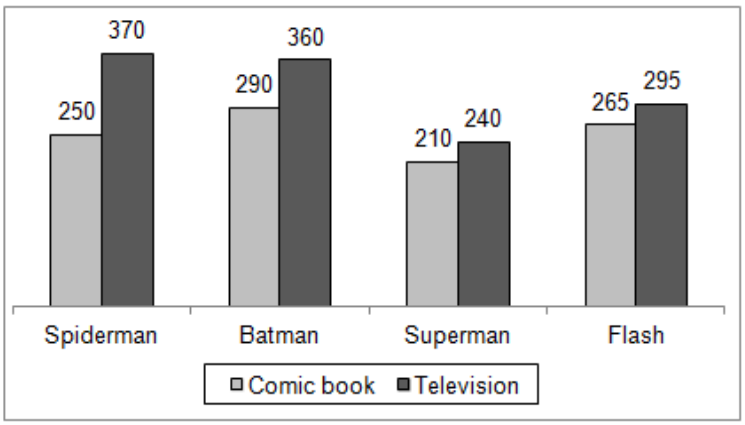
Your Attempt: **Correct**

% Students got it correct: **82 %**

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

The following graph shows the number of fans who read comic books and/or watch TV shows of different superheroes.

Loading...



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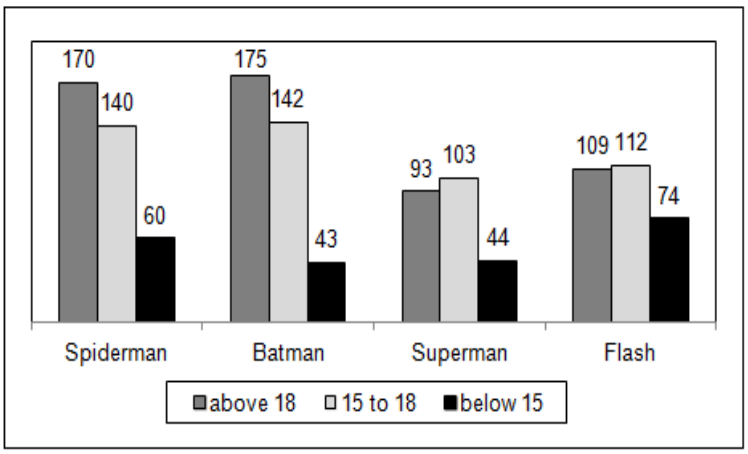

No two superheroes have common fans.

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

The year is 1609. A group of Spanish pirates have ransacked a town named Potosi in South America. The pirates are denoted as P1, P2, P3, P4 and so on in serial order (Note: the exact number of pirates is not known). The town is famous for gemstones and total five types of gemstones (named A, B, C, D and E) are abundantly found there. Each pirate randomly stole one gemstone each of the two out of these five types of gemstones such that no two pirates in the group stole the same pair of gemstones. Further, there was no pair of gemstones which was not stolen by a pirate.

On returning Madrid, the pirates learnt that the prices of the gemstones of types A, B, C, D and E were 10 pesetas, 100 pesetas, 1000 pesetas, 10000 pesetas and 100000 pesetas respectively.

The following points are known:

1. The total price of all the gemstones stolen by P1, P4 and P5 together was 2,220 pesetas.
2. The total price of all the gemstones stolen by P2, P6 and P8 together was 3,11,100 pesetas.
3. P7 stole a gemstone of type B.
4. P3 stole a gemstone of type C.
5. P9 stole a gemstone of type D.

1) Both the gemstones stolen by how many pirates be uniquely determined?

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

Video Explanation:

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

The year is 1609. A group of Spanish pirates have ransacked a town named Potosi in South America. The pirates are denoted as P1, P2, P3, P4 and so on in serial order (Note: the exact number of pirates is not known). The town is famous for gemstones and total five types of gemstones (named A, B, C, D and E) are abundantly found there. Each pirate randomly stole one gemstone each of the two out of these five types of gemstones such that no two pirates in the group stole the same pair of gemstones. Further, there was no pair of gemstones which was not stolen by a pirate.

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4. P3 stole a gemstone of type C.
5. P9 stole a gemstone of type D.

Since there are gemstones of five different types and each pirate stole gemstones of two types, the number of pirates = ${}^5C_2 = 10$. Each pirate stole two gemstones. The number of pirates who stole a gemstone of each of the five types = $\frac{10 \times 2}{5} = 4$.

There is one pirate who stole A and B, there is one other pirate who stole A and C etc. Using the prices of the gemstones given, we get the following:

	A+B	A+C	A+D	A+E	B+C	B+D	B+E	C+D	C+E	D+E
Price	110	1010	10010	100010	1100	10100	100100	11000	101000	110000

Given: The total price of all the gemstones stolen by P1, P4 and P5 together was 2,220 pesetas. The only way this is possible is if P1, P4 and P5 stole the combinations (A + B), (A + C) and (B + C) in some order.

Given: The total price of all the gemstones stolen by P2, P6 and P8 together was 3,11,100 pesetas. The only way this is possible is if P2, P6 and P8 stole the combinations (B + E), (C + E) and (D + E) in some order.

So far we have the following:

	A+B	A+C	A+D	A+E	B+C	B+D	B+E	C+D	C+E	D+E
Price	110	1010	10010	100010	1100	10100	100100	11000	101000	110000
Pirate	P1/P4/P5	P1/ P4/ P5			P1/ P4/ P5		P2/ P6/ P8		P2/ P6/ P8	P2/ P6/ P8

Given: P7 stole a gemstone of type B, P3 stole a gemstone of type C, P9 stole a gemstone of type D.

Therefore finally we have the following:

	A+B	A+C	A+D	A+E	B+C	B+D	B+E	C+D	C+E	D+E
Price	110	1010	10010	100010	1100	10100	100100	11000	101000	110000
Pirate	P1/P4/P5	P1/ P4/ P5	P9	P10	P1/ P4/ P5	P7	P2/ P6/ P8	P3	P2/ P6/ P8	P2/ P6/ P8

Therefore, the required answer is 4.

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **223 secs**

Your Attempt: **Skipped**

Change Section here ▼

% Students got it correct: **41 %**

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

The year is 1609. A group of Spanish pirates have ransacked a town named Potosi in South America. The pirates are denoted as P1, P2, P3, P4 and so on in serial order (Note: the exact number of pirates is not known). The town is famous for gemstones and total five types of gemstones (named A, B, C, D and E) are abundantly found there. Each pirate randomly stole one gemstone each of the two out of these five types of gemstones such that no two pirates in the group stole the same pair of gemstones. Further, there was no pair of gemstones which was not stolen by a pirate.

On returning Madrid, the pirates learnt that the prices of the gemstones of types A, B, C, D and E were 10 pesetas, 100 pesetas, 1000 pesetas, 10000 pesetas and 100000 pesetas respectively.

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3. P7 stole a gemstone of type B.
4. P3 stole a gemstone of type C.
5. P9 stole a gemstone of type D.

2) What was the sum of the price (in pesetas) of the two gemstones stolen by P10? (Write 0 if your answer is 'Cannot be determined' or there is no pirate P10).

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.

The year is 1609. A group of Spanish pirates have ransacked a town named Potosi in South America. The pirates are denoted as P1, P2, P3, P4 and so on in serial order (Note: the exact number of pirates is not known). The town is famous for gemstones and total five types of gemstones (named A, B, C, D and E) are abundantly found there. Each pirate randomly stole one gemstone each of the two out of these five types of gemstones such that no two pirates in the group stole the same pair of gemstones. Further, there was no pair of gemstones which was not stolen by a pirate.

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There is one pirate who stole A and B, there is one other pirate who stole A and C etc. Using the prices of the gemstones given, we get the following:

	A+B	A+C	A+D	A+E	B+C	B+D	B+E	C+D	C+E	D+E
Price	110	1010	10010	100010	1100	10100	100100	11000	101000	110000

Given: The total price of all the gemstones stolen by P1, P4 and P5 together was 2,220 pesetas. The only way this is possible is if P1, P4 and P5 stole the combinations (A + B), (A + C) and (B + C) in some order.

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So far we have the following:

	A+B	A+C	A+D	A+E	B+C	B+D	B+E	C+D	C+E	D+E
Price	110	1010	10010	100010	1100	10100	100100	11000	101000	110000
Pirate	P1/P4/P5	P1/ P4/ P5			P1/ P4/ P5		P2/ P6/ P8		P2/ P6/ P8	P2/ P6/ P8

Given: P7 stole a gemstone of type B, P3 stole a gemstone of type C, P9 stole a gemstone of type D.

Therefore finally we have the following:

	A+B	A+C	A+D	A+E	B+C	B+D	B+E	C+D	C+E	D+E
Price	110	1010	10010	100010	1100	10100	100100	11000	101000	110000
Pirate	P1/P4/P5	P1/ P4/ P5	P9	P10	P1/ P4/ P5	P7	P2/ P6/ P8	P3	P2/ P6/ P8	P2/ P6/ P8

Total price of the gemstones stolen by P10 = 100010. Therefore, the required answer is 100010.

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **72 secs**

Your Attempt: **Skipped**

Change Section here ▼

% Students got it correct: **51 %**

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

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3. P7 stole a gemstone of type B.
4. P3 stole a gemstone of type C.
5. P9 stole a gemstone of type D.

3) Who among the following definitely stole a gemstone of type E?

- P3
- P7
- P10
- P9

Video Explanation:

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

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So far we have the following:

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Price	110	1010	10010	100010	1100	10100	100100	11000	101000	110000
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Given: P7 stole a gemstone of type B, P3 stole a gemstone of type C, P9 stole a gemstone of type D.

Therefore finally we have the following:

	A+B	A+C	A+D	A+E	B+C	B+D	B+E	C+D	C+E	D+E
Price	110	1010	10010	100010	1100	10100	100100	11000	101000	110000
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It can be seen that P10 definitely stole a gemstone of type E. Hence, [3].

Correct Answer:

Time taken by you: **0 secs**

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

Your Attempt: **Skipped**

Change Section here ▼

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

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

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3. P7 stole a gemstone of type B.
4. P3 stole a gemstone of type C.
5. P9 stole a gemstone of type D.

4) Who among the following definitely stole a gemstone of type A?

- P6
- P7
- P2
- P9

Video Explanation:

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

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1. The total price of all the gemstones stolen by P1, P4 and P5 together was 2,220 pesetas.
2. The total price of all the gemstones stolen by P2, P6 and P8 together was 3,11,100 pesetas.
3. P7 stole a gemstone of type B.
4. P3 stole a gemstone of type C.
5. P9 stole a gemstone of type D.

Since there are gemstones of five different types and each pirate stole gemstones of two types, the number of pirates = ${}^5C_2 = 10$. Each pirate stole two gemstones. The number of pirates who stole a gemstone of each of the five types = $\frac{10 \times 2}{5} = 4$.

There is one pirate who stole A and B, there is one other pirate who stole A and C etc. Using the prices of the gemstones given, we get the following:

	A+B	A+C	A+D	A+E	B+C	B+D	B+E	C+D	C+E	D+E
Price	110	1010	10010	100010	1100	10100	100100	11000	101000	110000

Given: The total price of all the gemstones stolen by P1, P4 and P5 together was 2,220 pesetas. The only way this is possible is if P1, P4 and P5 stole the combinations (A + B), (A + C) and (B + C) in some order.

Given: The total price of all the gemstones stolen by P2, P6 and P8 together was 3,11,100 pesetas. The only way this is possible is if P2, P6 and P8 stole the combinations (B + E), (C + E) and (D + E) in some order.

So far we have the following:

	A+B	A+C	A+D	A+E	B+C	B+D	B+E	C+D	C+E	D+E
Price	110	1010	10010	100010	1100	10100	100100	11000	101000	110000
Pirate	P1/P4/P5	P1/ P4/ P5			P1/ P4/ P5		P2/ P6/ P8		P2/ P6/ P8	P2/ P6/ P8

Given: P7 stole a gemstone of type B, P3 stole a gemstone of type C, P9 stole a gemstone of type D.

Therefore finally we have the following:

	A+B	A+C	A+D	A+E	B+C	B+D	B+E	C+D	C+E	D+E
Price	110	1010	10010	100010	1100	10100	100100	11000	101000	110000
Pirate	P1/P4/P5	P1/ P4/ P5	P9	P10	P1/ P4/ P5	P7	P2/ P6/ P8	P3	P2/ P6/ P8	P2/ P6/ P8

It can be seen that P9 and P10 definitely stole a gemstone of type A. Hence, [4].

Correct Answer: ⌄

Time taken by you: **0 secs**

Avg Time taken by all students: **46 secs**

Your Attempt: **Skipped**

Change Section here ▼

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

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

The year is 1609. A group of Spanish pirates have ransacked a town named Potosi in South America. The pirates are denoted as P1, P2, P3, P4 and so on in serial order (Note: the exact number of pirates is not known). The town is famous for gemstones and total five types of gemstones (named A, B, C, D and E) are abundantly found there. Each pirate randomly stole one gemstone each of the two out of these five types of gemstones such that no two pirates in the group stole the same pair of gemstones. Further, there was no pair of gemstones which was not stolen by a pirate.

Loading...

On returning Madrid, the pirates learnt that the prices of the gemstones of types A, B, C, D and E were 10 pesetas, 100 pesetas, 1000 pesetas, 10000 pesetas and 100000 pesetas respectively.

The following points are known:

1. The total price of all the gemstones stolen by P1, P4 and P5 together was 2,220 pesetas.
2. The total price of all the gemstones stolen by P2, P6 and P8 together was 3,11,100 pesetas.
3. P7 stole a gemstone of type B.
4. P3 stole a gemstone of type C.
5. P9 stole a gemstone of type D.

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

6 friends Rachel, Ross, Monica, Joey, Chandler and Phoebe went to a wholesale market to buy different items among Coke costing Rs. 70 per litre, Oil costing Rs. 80 per litre & Juice costing Rs. 50 per litre. In the market these items were available in packages of 10 liters only. They all spent different amounts on the items but each of them bought every item. Additionally it was known that

1. Difference between amounts spent by Ross & Monica, Rachel & Phoebe and Joey & Chandler was equal.

2. None of them bought more than 20 liters of any item.

3. Only Joey bought maximum number of packages while only Monica bought minimum number of packages.

4. Rachel bought 20 liters of Coke & Phoebe bought 20 liters of Juice. Ross did not buy 20 liters of coke.

1) What was the total amount spent by all of them together?

- Rs. 17,900 ✓
- Rs. 18,100
- Rs. 18,200
- Rs. 17,200

Video Explanation:

Explanation:

The table given below enlists the 8 possible combinations using which the items could have been bought.

	1	2	3	4	5	6	7	8
Juice purchased (in liters)	10	10	10	10	20	20	20	20
Coke purchased (in liters)	10	20	10	20	10	10	20	20
Oil purchased (in liters)	10	10	20	20	10	20	10	20
Amount spent (in Rs.)	2000	2700	2800	3500	2500	3300	3200	4000

From condition 3, we know that column 1 and 8 denotes Monica's & Joey's spending respectively. Therefore, Rachel's & Phoebe's spending must be among the amounts in column 2 to column 7. Therefore, the maximum difference between the amounts spent by them must be Rs. 1,000. Since the cost of the items are Rs. 50, Rs. 70 and Rs. 80 & minimum 10 liters of items were bought, the differences mentioned in condition 1 must be Rs. 500, Rs. 700 or Rs. 800.

From condition 4, we know that Ross' spending must be among the amounts in column 3 and column 5. Thus, the possible difference between the amounts spent by Monica & Ross must be Rs. 500 or Rs. 800.

Also, as per condition 4, Phoebe may have spent any amount between Rs. 2,500, Rs. 3,200 & Rs. 3,300. Similarly, Rachel may have spent any amount between Rs. 2,700, Rs. 3,500 & Rs. 3,200. Thus, the difference between amounts spent by them can never be Rs. 800. Thus, the required difference mentioned in condition 1 is Rs. 500.

The amounts spent by Rachel, Phoebe, Chandler and Ross are Rs. 2,700, Rs. 3,200, Rs. 3,500 and Rs. 2,500 respectively.

The total amount spent by all of them together = Rs. 17,900

Hence, [1].

Correct Answer:

Time taken by you: **311 secs**

Avg Time taken by all students: **533 secs**

Your Attempt: **Correct**

Change Section here

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

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

6 friends Rachel, Ross, Monica, Joey, Chandler and Phoebe went to a wholesale market to buy different items among Coke costing Rs. 70 per litre, Oil costing Rs. 80 per litre & Juice costing Rs. 50 per litre. In the market these items were available in packages of 10 liters only. They all spent different amounts on the items but each of them bought every item. Additionally it was known that

1. Difference between amounts spent by Ross & Monica, Rachel & Phoebe and Joey & Chandler was equal.

2. None of them bought more than 20 liters of any item.

3. Only Joey bought maximum number of packages while only Monica bought minimum number of packages.

4. Rachel bought 20 liters of Coke & Phoebe bought 20 liters of Juice. Ross did not buy 20 liters of coke.

2) How many people bought exactly 10 liters of Oil?

- 4
- 5
- 3 ✗
- Cannot be determined

Video Explanation:

Explanation:

The table given below enlists the 8 possible combinations using which the items could have been bought.

	1	2	3	4	5	6	7	8
Juice purchased (in liters)	10	10	10	10	20	20	20	20
Coke purchased (in liters)	10	20	10	20	10	10	20	20
Oil purchased (in liters)	10	10	20	20	10	20	10	20
Amount spent (in Rs.)	2000	2700	2800	3500	2500	3300	3200	4000

From condition 3, we know that column 1 and 8 denotes Monica's & Joey's spending respectively. Therefore, Rachel's & Phoebe's spending must be among the amounts in column 2 to column 7. Therefore, the maximum difference between the amounts spent by them must be Rs. 1,000. Since the cost of the items are Rs. 50, Rs. 70 and Rs. 80 & minimum 10 liters of items were bought, the differences mentioned in condition 1 must be Rs. 500, Rs. 700 or Rs. 800.

From condition 4, we know that Ross' spending must be among the amounts in column 3 and column 5. Thus, the possible difference between the amounts spent by Monica & Ross must be Rs. 500 or Rs. 800.

Also, as per condition 4, Phoebe may have spent any amount between Rs. 2,500, Rs. 3,200 & Rs. 3,300. Similarly, Rachel may have spent any amount between Rs. 2,700, Rs. 3,500 & Rs. 3,200. Thus, the difference between amounts spent by them can never be Rs. 800. Thus, the required difference mentioned in condition 1 is Rs. 500.

The amounts spent by Rachel, Phoebe, Chandler and Ross are Rs. 2,700, Rs. 3,200, Rs. 3,500 and Rs. 2,500 respectively.

Monica, Rachel, Phoebe and Ross bought exactly 10 liters of Oil.

Hence, [1].

Correct Answer:

Time taken by you: **24 secs**

Change Section here

Avg Time taken by all students: **48 secs**

Your Attempt: **Wrong**

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

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

6 friends Rachel, Ross, Monica, Joey, Chandler and Phoebe went to a wholesale market to buy different items among Coke costing Rs. 70 per litre, Oil costing Rs. 80 per litre & Juice costing Rs. 50 per litre. In the market these items were available in packages of 10 liters only. They all spent different amounts on the items but each of them bought every item. Additionally it was known that

1. Difference between amounts spent by Ross & Monica, Rachel & Phoebe and Joey & Chandler was equal.

2. None of them bought more than 20 liters of any item.

3. Only Joey bought maximum number of packages while only Monica bought minimum number of packages.

4. Rachel bought 20 liters of Coke & Phoebe bought 20 liters of Juice. Ross did not buy 20 liters of coke.

3) Who spent the third largest amount?

- Chandler
- Phoebe
- Ross ✗
- Rachel

Video Explanation:

Explanation:

The table given below enlists the 8 possible combinations using which the items could have been bought.

	1	2	3	4	5	6	7	8
Juice purchased (in liters)	10	10	10	10	20	20	20	20
Coke purchased (in liters)	10	20	10	20	10	10	20	20
Oil purchased (in liters)	10	10	20	20	10	20	10	20
Amount spent (in Rs.)	2000	2700	2800	3500	2500	3300	3200	4000

From condition 3, we know that column 1 and 8 denotes Monica's & Joey's spending respectively. Therefore, Rachel's & Phoebe's spending must be among the amounts in column 2 to column 7. Therefore, the maximum difference between the amounts spent by them must be Rs. 1,000. Since the cost of the items are Rs. 50, Rs. 70 and Rs. 80 & minimum 10 liters of items were bought, the differences mentioned in condition 1 must be Rs. 500, Rs. 700 or Rs. 800.

From condition 4, we know that Ross' spending must be among the amounts in column 3 and column 5. Thus, the possible difference between the amounts spent by Monica & Ross must be Rs. 500 or Rs. 800.

Also, as per condition 4, Phoebe may have spent any amount between Rs. 2,500, Rs. 3,200 & Rs. 3,300. Similarly, Rachel may have spent any amount between Rs. 2,700, Rs. 3,500 & Rs. 3,200. Thus, the difference between amounts spent by them can never be Rs. 800. Thus, the required difference mentioned in condition 1 is Rs. 500.

The amounts spent by Rachel, Phoebe, Chandler and Ross are Rs. 2,700, Rs. 3,200, Rs. 3,500 and Rs. 2,500 respectively.

Phoebe spent the third largest amount.

Hence, [2].

Correct Answer:

Change Section here

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

6 friends Rachel, Ross, Monica, Joey, Chandler and Phoebe went to a wholesale market to buy different items among Coke costing Rs. 70 per litre, Oil costing Rs. 80 per litre & Juice costing Rs. 50 per litre. In the market these items were available in packages of 10 liters only. They all spent different amounts on the items but each of them bought every item. Additionally it was known that

1. Difference between amounts spent by Ross & Monica, Rachel & Phoebe and Joey & Chandler was equal.

2. None of them bought more than 20 liters of any item.

3. Only Joey bought maximum number of packages while only Monica bought minimum number of packages.

4. Rachel bought 20 liters of Coke & Phoebe bought 20 liters of Juice. Ross did not buy 20 liters of coke.

Time taken by you: **11 secs**

Avg Time taken by all students: **33 secs**

Your Attempt: **Wrong**

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

4) What is the difference between amounts spent by Ross & Chandler?

- Rs. 200
- Rs. 1,500
- Rs. 300
- Rs. 1,000 ✓

Video Explanation:

Change Section here

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

6 friends Rachel, Ross, Monica, Joey, Chandler and Phoebe went to a wholesale market to buy different items among Coke costing Rs. 70 per litre, Oil costing Rs. 80 per litre & Juice costing Rs. 50 per litre. In the market these items were available in packages of 10 liters only. They all spent different amounts on the items but each of them bought every item. Additionally it was known that

1. Difference between amounts spent by Ross & Monica, Rachel & Phoebe and Joey & Chandler was equal.

2. None of them bought more than 20 liters of any item.

3. Only Joey bought maximum number of packages while only Monica bought minimum number of packages.

4. Rachel bought 20 liters of Coke & Phoebe bought 20 liters of Juice. Ross did not buy 20 liters of coke.

Explanation:

The table given below enlists the 8 possible combinations using which the items could have been bought.

	1	2	3	4	5	6	7	8
Juice purchased (in liters)	10	10	10	10	20	20	20	20
Coke purchased (in liters)	10	20	10	20	10	10	20	20
Oil purchased (in liters)	10	10	20	20	10	20	10	20
Amount spent (in Rs.)	2000	2700	2800	3500	2500	3300	3200	4000

From condition 3, we know that column 1 and 8 denotes Monica's & Joey's spending respectively. Therefore, Rachel's & Phoebe's spending must be among the amounts in column 2 to column 7. Therefore, the maximum difference between the amounts spent by them must be Rs. 1,000. Since the cost of the items are Rs. 50, Rs. 70 and Rs. 80 & minimum 10 liters of items were bought, the differences mentioned in condition 1 must be Rs. 500, Rs. 700 or Rs. 800.

From condition 4, we know that Ross' spending must be among the amounts in column 3 and column 5. Thus, the possible difference between the amounts spent by Monica & Ross must be Rs. 500 or Rs. 800.

Also, as per condition 4, Phoebe may have spent any amount between Rs. 2,500, Rs. 3,200 & Rs. 3,300. Similarly, Rachel may have spent any amount between Rs. 2,700, Rs. 3,500 & Rs. 3,200. Thus, the difference between amounts spent by them can never be Rs. 800. Thus, the required difference mentioned in condition 1 is Rs. 500.

The amounts spent by Rachel, Phoebe, Chandler and Ross are Rs. 2,700, Rs. 3,200, Rs. 3,500 and Rs. 2,500 respectively.

∴ The difference between amounts spent by Ross & Chandler = Rs. 1,000

Hence, [4].

Correct Answer:

Rs. 1,000

Time taken by you: **780 secs**

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

Your Attempt: **Correct**

% Students got it correct: **74 %**

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

6 friends Rachel, Ross, Monica, Joey, Chandler and Phoebe went to a wholesale market to buy different items among Coke costing Rs. 70 per litre, Oil costing Rs. 80 per litre & Juice costing Rs. 50 per litre. In the market these items were available in packages of 10 liters only. They all spent different amounts on the items but each of them bought every item. Additionally it was known that

1. Difference between amounts spent by Ross & Monica, Rachel & Phoebe and Joey & Chandler was equal.

2. None of them bought more than 20 liters of any item.

3. Only Joey bought maximum number of packages while only Monica bought minimum number of packages.

4. Rachel bought 20 liters of Coke & Phoebe bought 20 liters of Juice. Ross did not buy 20 liters of coke.

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

Mr. Samuel travelled to countries A, B and C from India and returned to India on the same day. His flight from India took off at 5 AM Indian Standard Time and returned to India at midnight the same day. The route taken by him was India – A – C – B – C – A – India. The following table gives his flight departures/arrival timings in different countries in their respective standard times.

	Local Flight Timings in Countries			
	India (IST)	**A (AST)**	**B (BST)**	**C (CST)**
Trip 1 From India to A	5:00 AM	6:00 AM	-	-
Trip 2 From A to C	-	8:00 AM	-	9:00 AM
Trip 3 From C to B	-	-	10:00 AM	12:00 noon
Trip 4 From B to C	-	-	12:00 PM	5:00 PM
Trip 5 From C to A	-	9:00 PM	-	6:00 PM
Trip 6 From A to India	12:00 mid night	10:00 PM	-	-

Where IST: Indian Standard Time

AST: Country A's Standard Time

BST: Country B's Standard Time

CST: Country C's Standard Time

Time required by any flight for a forward journey is the same as the time required for the return journey.

1) What was the time (IST) when Mr. Samuel reached country C from A?

- 9:00 AM
- 9:30 AM
- 10:00 AM
- 10:30 AM

Video Explanation:

Explanation:

Consider trip 3 and 4:

Mr. Samuel spent 2 hours in country B. Let the flight took 't_1' hours between B and C.

$\therefore t_1 + 2 + t_1 = 5$ hours (in country C)

$\therefore t_1 = 1.5$ hours

Consider trip 2 and 5:

Let the flight took 't_2' hours between A and C.

$\therefore t_2 + 9 + t_2 = 13$ hours $\Rightarrow t_2 = 2$ hours

Consider trip 1 and 6:

Let the flight took 't_3' hours between A and India.

$\therefore t_3 + 16 + t_3 = 19$ hours $\Rightarrow t_3 = 1.5$ hours

Thus, the time (IST) at which Mr. Samuel reached country C = 5:00 AM + 1.5 hours (time to reach A from India) + 2 hours (time spent in country A) + 2 hours (time to travel from A to C) = 10:30 AM

Hence, [4].

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **239 secs**

Your Attempt: **Skipped**

% Students got it correct: **37 %**

2) Six hours before returning back to India, Mr. Samuel was:

- in country C.
- in a flight from country B to country C.
- in country A.
- in a flight from country C to country A.

Video Explanation:

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

Mr. Samuel travelled to countries A, B and C from India and returned to India on the same day. His flight from India took off at 5 AM Indian Standard Time and returned to India at midnight the same day. The route taken by him was India – A – C – B – C – A – India. The following table gives his flight departures/arrival timings in different countries in their respective standard times.

	Local Flight Timings in Countries			
	India (IST)	**A (AST)**	**B (BST)**	**C (CST)**
Trip 1 From India to A	5:00 AM	6:00 AM	-	-
Trip 2 From A to C	-	8:00 AM	-	9:00 AM
Trip 3 From C to B	-	-	10:00 AM	12:00 noon
Trip 4 From B to C	-	-	12:00 PM	5:00 PM
Trip 5 From C to A	-	9:00 PM	-	6:00 PM
Trip 6 From A to India	12:00 mid night	10:00 PM	-	-

Where IST: Indian Standard Time

AST: Country A's Standard Time

BST: Country B's Standard Time

CST: Country C's Standard Time

Time required by any flight for a forward journey is the same as the time required for the return journey.

Explanation:

Change Section here

Consider trip 3 and 4:

Mr. Samuel spent 2 hours in country B. Let the flight took 't_1' hours between B and C.

$\therefore t_1 + 2 + t_1 = 5$ hours (in country C)

$\therefore t_1 = 1.5$ hours

Consider trip 2 and 5:

Let the flight took 't_2' hours between A and C.

$\therefore t_2 + 9 + t_2 = 13$ hours $\Rightarrow t_2 = 2$ hours

Consider trip 1 and 6:

Let the flight took 't_3' hours between A and India.

$\therefore t_3 + 16 + t_3 = 19$ hours $\Rightarrow t_3 = 1.5$ hours

Thus Mr. Samuel started from India at 5:00 AM then,

(i) travelled for 1.5 hours to reach country A,

(ii) spent for 2 hours in country A,

(iii) travelled 2 hours to reach country C,

(iv) spent 3 hours in country C,

(v) travelled for 1.5 hours to reach country B,

(vi) spent 2 hours in country B,

(vii) travelled for 1.5 hours to reach country C,

(viii) spent 1 hours in country C,

(ix) travelled for 2 hours to reach country A,

(x) spent 1 hour in country A,

(xi) travelled for 1.5 hours to reach India at 12:00 mid night.

Consider last four points. 1 + 2 + 1 + 1.5 = 5.5 hours. Thus, he must be in flight from country B to country C between 5:00 PM (IST) to 6:30 PM (IST).

Hence, [2].

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **72 secs**

Your Attempt: **Skipped**

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

3) Mr. Samuel had to make a phone call to his head in India at 1:00 PM (IST). From where and when did he make the call?

- From country C at 9:30 AM (CST)
- While in the flight from C to B at 9:00 AM (BST)
- From country C at 11:30 AM (CST)
- From B at 10:00 AM (BST)

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

Mr. Samuel travelled to countries A, B and C from India and returned to India on the same day. His flight from India took off at 5 AM Indian Standard Time and returned to India at midnight the same day. The route taken by him was India – A – C – B – C – A – India. The following table gives his flight departures/arrival timings in different countries in their respective standard times.

	Local Flight Timings in Countries			
	India (IST)	**A (AST)**	**B (BST)**	**C (CST)**
Trip 1 From India to A	5:00 AM	6:00 AM	-	-
Trip 2 From A to C	-	8:00 AM	-	9:00 AM
Trip 3 From C to B	-	-	10:00 AM	12:00 noon
Trip 4 From B to C	-	-	12:00 PM	5:00 PM
Trip 5 From C to A	-	9:00 PM	-	6:00 PM
Trip 6 From A to India	12:00 mid night	10:00 PM	-	-

Where IST: Indian Standard Time

AST: Country A's Standard Time

BST: Country B's Standard Time

CST: Country C's Standard Time

Time required by any flight for a forward journey is the same as the time required for the return journey.

Explanation:

Consider trip 3 and 4:

Mr. Samuel spent 2 hours in country B. Let the flight took 't_1' hours between B and C.

$\therefore t_1 + 2 + t_1 = 5$ hours (in country C)

$\therefore t_1 = 1.5$ hours

Consider trip 2 and 5:

Let the flight took 't_2' hours between A and C.

$\therefore t_2 + 9 + t_2 = 13$ hours $\Rightarrow t_2 = 2$ hours

Consider trip 1 and 6:

Let the flight took 't_3' hours between A and India.

$\therefore t_3 + 16 + t_3 = 19$ hours $\Rightarrow t_3 = 1.5$ hours

Thus, the time (IST) at which Mr. Samuel reached country C = 5:00 AM + 1.5 hours (time to reach A from India) + 2 hours (time spent in country A) + 2 hours (time to travel from A to C) = 10:30 AM

$\therefore$ 9:00 AM (CST) = 10:30 AM (IST)

Mr. Samuel spent 3 hours in country C from 10:30 AM to 1:30 PM i.e., from 9:00 AM(CST) to 12:00 noon

Thus, he made a phone call from country C at 11:30(CST).

Hence, [3].

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **57 secs**

Your Attempt: **Skipped**

% Students got it correct: **58 %**

4) From Trip 1 to Trip 6, what was the total time Mr. Samuel spent on the flights?

- 8 hours
- 10 hours
- 12 hours
- 14 hours

Video Explanation:

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

Mr. Samuel travelled to countries A, B and C from India and returned to India on the same day. His flight from India took off at 5 AM Indian Standard Time and returned to India at midnight the same day. The route taken by him was India – A – C – B – C – A – India. The following table gives his flight departures/arrival timings in different countries in their respective standard times.

	Local Flight Timings in Countries			
	India (IST)	**A (AST)**	**B (BST)**	**C (CST)**
Trip 1 From India to A	5:00 AM	6:00 AM	-	-
Trip 2 From A to C	-	8:00 AM	-	9:00 AM
Trip 3 From C to B	-	-	10:00 AM	12:00 noon
Trip 4 From B to C	-	-	12:00 PM	5:00 PM
Trip 5 From C to A	-	9:00 PM	-	6:00 PM
Trip 6 From A to India	12:00 mid night	10:00 PM	-	-

Where IST: Indian Standard Time

AST: Country A's Standard Time

BST: Country B's Standard Time

CST: Country C's Standard Time

Time required by any flight for a forward journey is the same as the time required for the return journey.

Explanation:

Change Section here

Consider trip 3 and 4:

Mr. Samuel spent 2 hours in country B. Let the flight took 't_1' hours between B and C.

$\therefore t_1 + 2 + t_1 = 5$ hours (in country C)

$\therefore t_1 = 1.5$ hours

Consider trip 2 and 5:

Let the flight took 't_2' hours between A and C.

$\therefore t_2 + 9 + t_2 = 13$ hours $\Rightarrow t_2 = 2$ hours

Consider trip 1 and 6:

Let the flight took 't_3' hours between A and India.

$\therefore t_3 + 16 + t_3 = 19$ hours $\Rightarrow t_3 = 1.5$ hours

As can be seen from the explanation total time spent on the 6 flights

$= 2 \times 1.5 + 2 \times 2 + 2 \times 1.5 = 10$ hours.

Hence, [2].

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **55 secs**

Your Attempt: **Skipped**

% Students got it correct: **41 %**

Loading...

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

Trump, Cruz, Rubio and Kasich are the leaders of Republican Party, while Clinton, Sanders, Webb and Lawrence are the leaders of Democratic Party. Before the midterm elections of 2018, Fox News arranged a series of debates between one participant of the two parties regarding the policies of their respective parties. The debates were held in four mid-sized towns, namely Chattanooga, Providence, Sunnyvale and Fort Collins.

The following table shows the number of debates the four leaders of the Republican party participated in the four towns:

	Trump	Cruz	Rubio	Kasich
Chattanooga	1	1	1	0
Providence	0	1	1	1
Sunnyvale	1	0	0	1
Fort Collins	1	1	0	0

The following table shows the number of debates participated into by the leaders of the two parties.

	Clinton	Sanders	Webb	Lawrence
Trump	1	1	0	1
Cruz	1	1	0	1
Rubio	2	0	0	0
Kasich	0	0	2	0

(For example, Rubio and Clinton participated in two debates with each other. Cruz and Lawrence participated in one debate with each other and so on).

It is known that out of 8 participants (4 Republican and 4 Democratic), only Clinton participated in the debates at all the four venues, while the remaining three Democratic participants participated in debates in exactly two of the four venues.

1) What was the venue of the debate between Cruz and Sanders?

- Chattanooga
- Providence
- Fort Collins
- Chattanooga or Providence

Video Explanation:

Explanation:

It can be seen that Rubio and Clinton participated in debates with each other two times. Further, Rubio participated in one debate each in Chattanooga and Providence. Therefore two Rubio-Clinton debates took place at Chattanooga and Providence.

Similarly, Kasich and Webb participated in debates with each other two times and Kasich participated in debates in Providence and Sunnyvale. Therefore two Kasich-Webb debates took place at Providence and Sunnyvale.

Using the information from Table 1 about the Republican participants in different cities, we get the following:

Venue	Republican	Democratic
Chattanooga	Rubio	Clinton
Chattanooga	Trump	
Chattanooga	Cruz	
Providence	Rubio	Clinton
Providence	Kasich	Webb
Providence	Cruz	
Sunnyvale	Kasich	Webb
Sunnyvale	Trump	
Fort Collins	Trump	
Fort Collins	Cruz	

Since Clinton is the only participant who participated in debates in all the four cities, the second debate in Sunnyvale was between Trump and Clinton. Similarly, we have figured out three out of four debates Clinton participated in (two debates with Rubio and one debate with Trump). Therefore Clinton's debate in Fort Collins was with Cruz. So far we have the following:

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

Trump, Cruz, Rubio and Kasich are the leaders of Republican Party, while Clinton, Sanders, Webb and Lawrence are the leaders of Democratic Party. Before the midterm elections of 2018, Fox News arranged a series of debates between one participant of the two parties regarding the policies of their respective parties. The debates were held in four mid-sized towns, namely Chattanooga, Providence, Sunnyvale and Fort Collins.

The following table shows the number of debates the four leaders of the Republican party participated in the four towns:

	Trump	Cruz	Rubio	Kasich
Chattanooga	1	1	1	0
Providence	0	1	1	1
Sunnyvale	1	0	0	1
Fort Collins	1	1	0	0

The following table shows the number of debates participated into by the leaders of the two parties.

	Clinton	Sanders	Webb	Lawrence
Trump	1	1	0	1
Cruz	1	1	0	1
Rubio	2	0	0	0
Kasich	0	0	2	0

(For example, Rubio and Clinton participated in two debates with each other. Cruz and Lawrence participated in one debate with each other and so on).

It is known that out of 8 participants (4 Republican and 4 Democratic), only Clinton participated in the debates at all the four venues, while the remaining three Democratic participants participated in debates in exactly two of the four venues.

Venue	Republican	D
Chattanooga	Rubio	Clinton
Chattanooga	Trump	
Chattanooga	Cruz	
Providence	Rubio	Clinton
Providence	Kasich	Webb
Providence	Cruz	
Sunnyvale	Kasich	Webb
Sunnyvale	Trump	Clinton
Fort Collins	Trump	
Fort Collins	Cruz	Clinton

The debates at Chattanooga and Providence that Cruz participated in were with Sanders or Lawrence. Similarly the debates at Chattanooga and Fort Collins that Trump participated in were with Sanders or Lawrence.

Therefore we have the following:

Venue	Republican	Democratic
Chattanooga	Rubio	Clinton
Chattanooga	Trump	Sanders/Lawrence
Chattanooga	Cruz	Sanders/Lawrence
Providence	Rubio	Clinton
Providence	Kasich	Webb
Providence	Cruz	Lawrence/Sanders
Sunnyvale	Kasich	Webb
Sunnyvale	Trump	Clinton
Fort Collins	Trump	Lawrence/Sanders
Fort Collins	Cruz	Clinton

Hence, [4].

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **494 secs**

Your Attempt: **Skipped**

% Students got it correct: **74 %**

2) What was the venue of the debate between Cruz and Clinton?

- Fort Collins
- Chattanooga
- Providence

Either Chattanooga or Providence

Change Section here

Video Explanation:

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

Trump, Cruz, Rubio and Kasich are the leaders of Republican Party, while Clinton, Sanders, Webb and Lawrence are the leaders of Democratic Party. Before the midterm elections of 2018, Fox News arranged a series of debates between one participant of the two parties regarding the policies of their respective parties. The debates were held in four mid-sized towns, namely Chattanooga, Providence, Sunnyvale and Fort Collins.

The following table shows the number of debates the four leaders of the Republican party participated in the four towns:

	Trump	Cruz	Rubio	Kasich
Chattanooga	1	1	1	0
Providence	0	1	1	1
Sunnyvale	1	0	0	1
Fort Collins	1	1	0	0

The following table shows the number of debates participated into by the leaders of the two parties.

	Clinton	Sanders	Webb	Lawrence
Trump	1	1	0	1
Cruz	1	1	0	1
Rubio	2	0	0	0
Kasich	0	0	2	0

(For example, Rubio and Clinton participated in two debates with each other. Cruz and Lawrence participated in one debate with each other and so on).

It is known that out of 8 participants (4 Republican and 4 Democratic), only Clinton participated in the debates at all the four venues, while the remaining three Democratic participants participated in debates in exactly two of the four venues.

Explanation:

It can be seen that Rubio and Clinton participated in debates with each other two times. Further, Rubio participated in one debate each in Chattanooga and Providence. Therefore two Rubio-Clinton debates took place at Chattanooga and Providence.

Similarly, Kasich and Webb participated in debates with each other two times and Kasich participated in debates in Providence and Sunnyvale. Therefore two Kasich-Webb debates took place at Providence and Sunnyvale.

Using the information from Table 1 about the Republican participants in different cities, we get the following:

Venue	Republican	Democratic
Chattanooga	Rubio	Clinton
Chattanooga	Trump	
Chattanooga	Cruz	
Providence	Rubio	Clinton
Providence	Kasich	Webb
Providence	Cruz	
Sunnyvale	Kasich	Webb
Sunnyvale	Trump	
Fort Collins	Trump	
Fort Collins	Cruz	

Since Clinton is the only participant who participated in debates in all the four cities, the second debate in Sunnyvale was between Trump and Clinton. Similarly, we have figured out three out of four debates Clinton participated in (two debates with Rubio and one debate with Trump). Therefore Clinton's debate in Fort Collins was with Cruz. So far we have the following:

Venue	Republican	Democratic
Chattanooga	Rubio	Clinton
Chattanooga	Trump	
Chattanooga	Cruz	
Providence	Rubio	Clinton
Providence	Kasich	Webb
Providence	Cruz	
Sunnyvale	Kasich	Webb
Sunnyvale	Trump	Clinton
Fort Collins	Trump	
Fort Collins	Cruz	Clinton

The debates at Chattanooga and Providence that Cruz participated in were with Sanders or Lawrence. Similarly the debates at Chattanooga and Fort Collins that Trump participated

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

Trump, Cruz, Rubio and Kasich are the leaders of Republican Party, while Clinton, Sanders, Webb and Lawrence are the leaders of Democratic Party. Before the midterm elections of 2018, Fox News arranged a series of debates between one participant of the two parties regarding the policies of their respective parties. The debates were held in four mid-sized towns, namely Chattanooga, Providence, Sunnyvale and Fort Collins.

The following table shows the number of debates the four leaders of the Republican party participated in the four towns:

	Trump	Cruz	Rubio	Kasich
Chattanooga	1	1	1	0
Providence	0	1	1	1
Sunnyvale	1	0	0	1
Fort Collins	1	1	0	0

The following table shows the number of debates participated into by the leaders of the two parties.

	Clinton	Sanders	Webb	Lawrence
Trump	1	1	0	1
Cruz	1	1	0	1
Rubio	2	0	0	0
Kasich	0	0	2	0

(For example, Rubio and Clinton participated in two debates with each other. Cruz and Lawrence participated in one debate with each other and so on).

It is known that out of 8 participants (4 Republican and 4 Democratic), only Clinton participated in the debates at all the four venues, while the remaining three Democratic participants participated in debates in exactly two of the four venues.

in were with Sanders or Lawrence.

Change Section here ▾

Therefore we have the following:

Venue	Republican	Democratic
Chattanooga	Rubio	Clinton
Chattanooga	Trump	Sanders/Lawrence
Chattanooga	Cruz	Sanders/Lawrence
Providence	Rubio	Clinton
Providence	Kasich	Webb
Providence	Cruz	Lawrence/Sanders
Sunnyvale	Kasich	Webb
Sunnyvale	Trump	Clinton
Fort Collins	Trump	Lawrence/Sanders
Fort Collins	Cruz	Clinton

Hence, [1].

Correct Answer: ⌄

Time taken by you: **0 secs**

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

Your Attempt: **Skipped**

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

3) For how many venues, both the participants in all the debates in those places can be uniquely determined? −

- 0
- 1
- 2
- More than 2

Video Explanation: ⌄

Explanation: ⌄

It can be seen that Rubio and Clinton participated in debates with each other two times. Further, Rubio participated in one debate each in Chattanooga and Providence. Therefore two Rubio-Clinton debates took place at Chattanooga and Providence.

Similarly, Kasich and Webb participated in debates with each other two times and Kasich participated in debates in Providence and Sunnyvale. Therefore two Kasich-Webb debates took place at Providence and Sunnyvale.

Using the information from Table 1 about the Republican participants in different cities, we get the following:

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

Trump, Cruz, Rubio and Kasich are the leaders of Republican Party, while Clinton, Sanders, Webb and Lawrence are the leaders of Democratic Party. Before the midterm elections of 2018, Fox News arranged a series of debates between one participant of the two parties regarding the policies of their respective parties. The debates were held in four mid-sized towns, namely Chattanooga, Providence, Sunnyvale and Fort Collins.

The following table shows the number of debates the four leaders of the Republican party participated in the four towns:

	Trump	Cruz	Rubio	Kasich
Chattanooga	1	1	1	0
Providence	0	1	1	1
Sunnyvale	1	0	0	1
Fort Collins	1	1	0	0

The following table shows the number of debates participated into by the leaders of the two parties.

	Clinton	Sanders	Webb	Lawrence
Trump	1	1	0	1
Cruz	1	1	0	1
Rubio	2	0	0	0
Kasich	0	0	2	0

(For example, Rubio and Clinton participated in two debates with each other. Cruz and Lawrence participated in one debate with each other and so on).

It is known that out of 8 participants (4 Republican and 4 Democratic), only Clinton participated in the debates at all the four venues, while the remaining three Democratic participants participated in debates in exactly two of the four venues.

Venue	Republican	
~~Chattanooga~~	~~Rubio~~	~~Clinton~~
Chattanooga	Trump	
Chattanooga	Cruz	
Providence	Rubio	Clinton
Providence	Kasich	Webb
Providence	Cruz	
Sunnyvale	Kasich	Webb
Sunnyvale	Trump	
Fort Collins	Trump	
Fort Collins	Cruz	

Since Clinton is the only participant who participated in debates in all the four cities, the second debate in Sunnyvale was between Trump and Clinton. Similarly, we have figured out three out of four debates Clinton participated in (two debates with Rubio and one debate with Trump). Therefore Clinton's debate in Fort Collins was with Cruz. So far we have the following:

Venue	Republican	Democratic
Chattanooga	Rubio	Clinton
Chattanooga	Trump	
Chattanooga	Cruz	
Providence	Rubio	Clinton
Providence	Kasich	Webb
Providence	Cruz	
Sunnyvale	Kasich	Webb
Sunnyvale	Trump	Clinton
Fort Collins	Trump	
Fort Collins	Cruz	Clinton

The debates at Chattanooga and Providence that Cruz participated in were with Sanders or Lawrence. Similarly the debates at Chattanooga and Fort Collins that Trump participated in were with Sanders or Lawrence.

Therefore we have the following:

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

Trump, Cruz, Rubio and Kasich are the leaders of Republican Party, while Clinton, Sanders, Webb and Lawrence are the leaders of Democratic Party. Before the midterm elections of 2018, Fox News arranged a series of debates between one participant of the two parties regarding the policies of their respective parties. The debates were held in four mid-sized towns, namely Chattanooga, Providence, Sunnyvale and Fort Collins.

The following table shows the number of debates the four leaders of the Republican party participated in the four towns:

	Trump	Cruz	Rubio	Kasich
Chattanooga	1	1	1	0
Providence	0	1	1	1
Sunnyvale	1	0	0	1
Fort Collins	1	1	0	0

The following table shows the number of debates participated into by the leaders of the two parties.

	Clinton	Sanders	Webb	Lawrence
Trump	1	1	0	1
Cruz	1	1	0	1
Rubio	2	0	0	0
Kasich	0	0	2	0

(For example, Rubio and Clinton participated in two debates with each other. Cruz and Lawrence participated in one debate with each other and so on).

It is known that out of 8 participants (4 Republican and 4 Democratic), only Clinton participated in the debates at all the four venues, while the remaining three Democratic participants participated in debates in exactly two of the four venues.

Venue	Republican	D
Chattanooga	Rubio	Clinton
Chattanooga	Trump	Sanders/Lawrence
Chattanooga	Cruz	Sanders/Lawrence
Providence	Rubio	Clinton
Providence	Kasich	Webb
Providence	Cruz	Lawrence/Sanders
Sunnyvale	Kasich	Webb
Sunnyvale	Trump	Clinton
Fort Collins	Trump	Lawrence/Sanders
Fort Collins	Cruz	Clinton

We can see that we can determine both the participants of all the debates only in Sunnyvale. Hence, [2].

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **33 secs**

Your Attempt: **Skipped**

% Students got it correct: **44 %**

4) For how many Democratic leaders, can the venues of all their debates be uniquely determined?

- 0
- 1
- 2
- More than 2

Video Explanation:

Explanation:

It can be seen that Rubio and Clinton participated in debates with each other two times. Further, Rubio participated in one debate each in Chattanooga and Providence. Therefore two Rubio-Clinton debates took place at Chattanooga and Providence.

Similarly, Kasich and Webb participated in debates with each other two times and Kasich participated in debates in Providence and Sunnyvale. Therefore two Kasich-Webb debates took place at Providence and Sunnyvale.

Using the information from Table 1 about the Republican participants in different cities, we get the following:

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

Trump, Cruz, Rubio and Kasich are the leaders of Republican Party, while Clinton, Sanders, Webb and Lawrence are the leaders of Democratic Party. Before the midterm elections of 2018, Fox News arranged a series of debates between one participant of the two parties regarding the policies of their respective parties. The debates were held in four mid-sized towns, namely Chattanooga, Providence, Sunnyvale and Fort Collins.

The following table shows the number of debates the four leaders of the Republican party participated in the four towns:

	Trump	Cruz	Rubio	Kasich
Chattanooga	1	1	1	0
Providence	0	1	1	1
Sunnyvale	1	0	0	1
Fort Collins	1	1	0	0

The following table shows the number of debates participated into by the leaders of the two parties.

	Clinton	Sanders	Webb	Lawrence
Trump	1	1	0	1
Cruz	1	1	0	1
Rubio	2	0	0	0
Kasich	0	0	2	0

(For example, Rubio and Clinton participated in two debates with each other. Cruz and Lawrence participated in one debate with each other and so on).

It is known that out of 8 participants (4 Republican and 4 Democratic), only Clinton participated in the debates at all the four venues, while the remaining three Democratic participants participated in debates in exactly two of the four venues.

Venue	Republican	
~~Chattanooga~~	~~Rubio~~	~~Clinton~~
Chattanooga	Trump	
Chattanooga	Cruz	
Providence	Rubio	Clinton
Providence	Kasich	Webb
Providence	Cruz	
Sunnyvale	Kasich	Webb
Sunnyvale	Trump	
Fort Collins	Trump	
Fort Collins	Cruz	

Since Clinton is the only participant who participated in debates in all the four cities, the second debate in Sunnyvale was between Trump and Clinton. Similarly, we have figured out three out of four debates Clinton participated in (two debates with Rubio and one debate with Trump). Therefore Clinton's debate in Fort Collins was with Cruz. So far we have the following:

Venue	Republican	Democratic
Chattanooga	Rubio	Clinton
Chattanooga	Trump	
Chattanooga	Cruz	
Providence	Rubio	Clinton
Providence	Kasich	Webb
Providence	Cruz	
Sunnyvale	Kasich	Webb
Sunnyvale	Trump	Clinton
Fort Collins	Trump	
Fort Collins	Cruz	Clinton

The debates at Chattanooga and Providence that Cruz participated in were with Sanders or Lawrence. Similarly the debates at Chattanooga and Fort Collins that Trump participated in were with Sanders or Lawrence.

Therefore we have the following:

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

Trump, Cruz, Rubio and Kasich are the leaders of Republican Party, while Clinton, Sanders, Webb and Lawrence are the leaders of Democratic Party. Before the midterm elections of 2018, Fox News arranged a series of debates between one participant of the two parties regarding the policies of their respective parties. The debates were held in four mid-sized towns, namely Chattanooga, Providence, Sunnyvale and Fort Collins.

The following table shows the number of debates the four leaders of the Republican party participated in the four towns:

	Trump	Cruz	Rubio	Kasich
Chattanooga	1	1	1	0
Providence	0	1	1	1
Sunnyvale	1	0	0	1
Fort Collins	1	1	0	0

The following table shows the number of debates participated into by the leaders of the two parties.

	Clinton	Sanders	Webb	Lawrence
Trump	1	1	0	1
Cruz	1	1	0	1
Rubio	2	0	0	0
Kasich	0	0	2	0

(For example, Rubio and Clinton participated in two debates with each other. Cruz and Lawrence participated in one debate with each other and so on).

It is known that out of 8 participants (4 Republican and 4 Democratic), only Clinton participated in the debates at all the four venues, while the remaining three Democratic participants participated in debates in exactly two of the four venues.

Venue	Republican	D
Chattanooga	Rubio	Clinton
Chattanooga	Trump	Sanders/Lawrence
Chattanooga	Cruz	Sanders/Lawrence
Providence	Rubio	Clinton
Providence	Kasich	Webb
Providence	Cruz	Lawrence/Sanders
Sunnyvale	Kasich	Webb
Sunnyvale	Trump	Clinton
Fort Collins	Trump	Lawrence/Sanders
Fort Collins	Cruz	Clinton

We can see that we can uniquely determine the venues of the debates of Clinton and Webb. Hence, [3].

Correct Answer:

Time taken by you: **0 secs**

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

Your Attempt: **Skipped**

% Students got it correct: **71 %**

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

Maratha Mandir decided to hold a movie marathon in the first week (Monday to Friday) of January next year. The movies are from the following genres – Action, Comedy, Drama, Horror and Sci-Fi. They are shown in 3 slots – Morning, Afternoon & Evening.

The following additional information is given to us.

I. One show of each genre is shown exactly once in each of the three slots in the week, but there can be two shows of the same genre in a day.

II. The Sci-Fi movie is shown first on a particular day and last on the following day.

III. The Drama movie is not shown on Wednesday, and it immediately follows the Sci-Fi movie on consecutive days.

IV. The Action movie is shown between the Horror and Comedy movies (order may be different) on Friday.

1) The positions of how many movie slots can be uniquely determined?

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

Video Explanation:

Explanation:

From (II) and (III), Drama movie cannot be shown on Wednesday and Friday, also it follows Sci-Fi on consecutive days, so these days must be Monday and Tuesday. Additionally, Sci-Fi is shown first and last on consecutive days, so these days must be Tuesday and Wednesday. Drama movie can be shown in the morning slot of either Monday or Thursday.

Based on the initial conditions, the following table can be prepared.

	Morning	Afternoon	Evening
Monday		**Sci-Fi**	**Drama**
Tuesday	**Sci-Fi**	**Drama**	
Wednesday		Horror/Comedy	**Sci-Fi**
Thursday		Horror/Comedy	
Friday	Horror/Comedy	**Action**	Horror/Comedy

In the above table, the positions marked in bold are the only ones that can be uniquely determined.

Therefore, the required answer is 6.

Correct Answer:

Time taken by you: **0 secs**

Avg Time taken by all students: **73 secs**

Your Attempt: **Skipped**

% Students got it correct: **14 %**

2) If the three comedy movies are shown on three consecutive days, then which movie is shown in the evening slot on Tuesday?

- Action ✗
- Comedy
- Horror
- Action or Horror

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

Maratha Mandir decided to hold a movie marathon in the first week (Monday to Friday) of January next year. The movies are from the following genres – Action, Comedy, Drama, Horror and Sci-Fi. They are shown in 3 slots – Morning, Afternoon & Evening.

The following additional information is given to us.

I. One show of each genre is shown exactly once in each of the three slots in the week, but there can be two shows of the same genre in a day.

II. The Sci-Fi movie is shown first on a particular day and last on the following day.

III. The Drama movie is not shown on Wednesday, and it immediately follows the Sci-Fi movie on consecutive days.

IV. The Action movie is shown between the Horror and Comedy movies (order may be different) on Friday.

Explanation:

From (II) and (III), Drama movie cannot be shown on Wednesday and Friday, also it follows Sci-Fi on consecutive days, so these days must be Monday and Tuesday. Additionally, Sci-Fi is shown first and last on consecutive days, so these days must be Tuesday and Wednesday.

Based on the initial conditions, the following table can be prepared,

	Morning	Afternoon	Evening
Monday		Sci-Fi	Drama
Tuesday	Sci-Fi	Drama	
Wednesday		Horror/Comedy	Sci-Fi
Thursday		Horror/Comedy	
Friday	Horror/Comedy	Action	Horror/Comedy

As three Comedy movies are shown on consecutive days, these days must be Wednesday, Thursday and Friday.

Case 1 : Comedy movie is shown in Friday morning slot :

	Morning	Afternoon	Evening
Monday		Sci-Fi	Drama
Tuesday	Sci-Fi	Drama	Action
Wednesday		Comedy	Sci-Fi
Thursday		Horror	Comedy
Friday	Comedy	Action	Horror

Movie shown in Tuesday evening slot is Action.

Case 2 – Comedy movie is shown in Friday evening slot :

Case 2A:

	Morning	Afternoon	Evening
Monday		Sci-Fi	Drama
Tuesday	Sci-Fi	Drama	Action/Horror
Wednesday	Comedy	Horror	Sci-Fi
Thursday		Comedy	Action/Horror
Friday	Horror	Action	Comedy

Case 2B:

	Morning	Afternoon	Evening
Monday	Drama	Sci-Fi	Drama
Tuesday	Sci-Fi	Drama	Horror
Wednesday	Action	Comedy	Sci-Fi
Thursday	Comedy	Horror	Action
Friday	Horror	Action	Comedy

We see that either Action or Horror movie can be shown on Tuesday evening.

Hence, [4].

Correct Answer:

Time taken by you: **662 secs**

Avg Time taken by all students: **155 secs**

Your Attempt: **Wrong**

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

Maratha Mandir decided to hold a movie marathon in the first week (Monday to Friday) of January next year. The movies are from the following genres – Action, Comedy, Drama, Horror and Sci-Fi. They are shown in 3 slots – Morning, Afternoon & Evening.

The following additional information is given to us.

I. One show of each genre is shown exactly once in each of the three slots in the week, but there can be two shows of the same genre in a day.

II. The Sci-Fi movie is shown first on a particular day and last on the following day.

III. The Drama movie is not shown on Wednesday, and it immediately follows the Sci-Fi movie on consecutive days.

IV. The Action movie is shown between the Horror and Comedy movies (order may be different) on Friday.

3) If Drama and Comedy movies are not shown on the same day and Action movie is shown in Moday morning slot then on how many days the Comedy movie is definitely shown before the Sci-Fi movie?

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

Video Explanation:

Explanation:

Drama movie cannot be shown on Wednesday and Friday, also it follows Sci-Fi on consecutive days, so these days must be Monday and Tuesday. Additionally, Sci-Fi is shown first and last on consecutive days, so these days must be Tuesday and Wednesday.

Based on the initial conditions, the following table can be prepared,

	Morning	Afternoon	Evening
Monday		**Sci-Fi**	**Drama**
Tuesday	**Sci-Fi**	**Drama**	
Wednesday		Horror/Comedy	**Sci-Fi**
Thursday		Horror/Comedy	
Friday	Horror/Comedy	**Action**	Horror/Comedy

Action movie is shown on Monday morning slot. Since, Drama and Comedy movies are not shown on the same day, Comedy movie cannot be shown on Monday, Tuesday and Thursday. So, it can be shown only on Wednesday and Friday. Thus, the updated table looks like this,

	Morning	Afternoon	Evening
Monday	Action	Sci-Fi	Drama
Tuesday	Sci-Fi	Drama	Action/Horror
Wednesday	Comedy	Comedy	Sci-Fi
Thursday	Drama	Horror	Action/Horror
Friday	Horror	Action	Comedy

From the table, we see that only on Wednesday i.e., Wednesday (M) and Wednesday (A), the Comedy movie is shown before the Sci-Fi movie.

Therefore, the required answer is 1.

Correct Answer:

Time taken by you: **0 secs**

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

Your Attempt: **Skipped**

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

Maratha Mandir decided to hold a movie marathon in the first week (Monday to Friday) of January next year. The movies are from the following genres – Action, Comedy, Drama, Horror and Sci-Fi. They are shown in 3 slots – Morning, Afternoon & Evening.

The following additional information is given to us.

I. One show of each genre is shown exactly once in each of the three slots in the week, but there can be two shows of the same genre in a day.

II. The Sci-Fi movie is shown first on a particular day and last on the following day.

III. The Drama movie is not shown on Wednesday, and it immediately follows the Sci-Fi movie on consecutive days.

IV. The Action movie is shown between the Horror and Comedy movies (order may be different) on Friday.

4) Additionally, if the Horror movie is shown immediately after the Drama movie only once, then which movie is shown in the evening slot on Thursday? (Use data from the previous question).

- Action ✗
- Comedy
- Horror
- Cannot be Determined

Video Explanation:

Explanation:

Drama movie cannot be shown on Wednesday and Friday, also it follows Sci-Fi on consecutive days, so these days must be Monday and Tuesday. Additionally, Sci-Fi is shown first and last on consecutive days, so these days must be Tuesday and Wednesday.

Based on the initial conditions, the following table can be prepared,

	Morning	Afternoon	Evening
Monday		Sci-Fi	Drama
Tuesday	Sci-Fi	Drama	
Wednesday		Horror/Comedy	Sci-Fi
Thursday		Horror/Comedy	
Friday	Horror/Comedy	Action	Horror/Comedy

Action movie is shown on Monday morning slot. Since, Drama and Comedy movies are not shown on the same day, Comedy movie cannot be shown on Monday, Tuesday and Thursday. So, it can be shown only on Wednesday and Friday. Thus, the updated table looks like this,

	Morning	Afternoon	Evening
Monday	Action	Sci-Fi	Drama
Tuesday	Sci-Fi	Drama	Action/Horror
Wednesday	Comedy	Comedy	Sci-Fi
Thursday	Drama	Horror	Action/Horror
Friday	Horror	Action	Comedy

Since, there is only instance where a Drama movie is followed by a Horror movie, Thursday (M) and Thursday (A) slots, the Horror movie cannot be shown on Tuesday. So, the Action movie is shown on Tuesday (E) and the Horror movie is shown on Thursday (E).

	Morning	Afternoon	Evening
Monday	Action	Sci-Fi	Drama
Tuesday	Sci-Fi	Drama	Action
Wednesday	Comedy	Comedy	Sci-Fi
Thursday	Drama	Horror	Horror
Friday	Horror	Action	Comedy

Hence, [3].

Correct Answer:

Time taken by you: **233 secs**

Avg Time taken by all students: **36 secs**

Change Section here ▾

Your Attempt: **Wrong**

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

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

Maratha Mandir decided to hold a movie marathon in the first week (Monday to Friday) of January next year. The movies are from the following genres – Action, Comedy, Drama, Horror and Sci-Fi. They are shown in 3 slots – Morning, Afternoon & Evening.

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II. The Sci-Fi movie is shown first on a particular day and last on the following day.

III. The Drama movie is not shown on Wednesday, and it immediately follows the Sci-Fi movie on consecutive days.

IV. The Action movie is shown between the Horror and Comedy movies (order may be different) on Friday.

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