

CDC 06 2022 DILR

Scorecard (procreview.jsp?sid=aaaN5tjtX0b7WgArBjowySun Jan 08 23:54:33 IST 2023&qsetId=2QDaNRHhgd4=&qsetName=CDC 06 2022 DILR)

Accuracy (AccSelectGraph.jsp?sid=aaaN5tjtX0b7WgArBjowySun Jan 08 23:54:33 IST 2023&qsetId=2QDaNRHhgd4=&qsetName=CDC 06 2022 DILR)

Qs Analysis (QsAnalysis.jsp?sid=aaaN5tjtX0b7WgArBjowySun Jan 08 23:54:33 IST 2023&qsetId=2QDaNRHhgd4=&qsetName=CDC 06 2022 DILR)

Video Attempt / Solution (VideoAnalysis.jsp?sid=aaaN5tjtX0b7WgArBjowySun Jan 08 23:54:33 IST 2023&qsetId=2QDaNRHhgd4=&qsetName=CDC 06 2022 DILR)

Solutions (Solution.jsp?sid=aaaN5tjtX0b7WgArBjowySun Jan 08 23:54:33 IST 2023&qsetId=2QDaNRHhgd4=&qsetName=CDC 06 2022 DILR)

Bookmarks (Bookmarks.jsp?sid=aaaN5tjtX0b7WgArBjowySun Jan 08 23:54:33 IST 2023&qsetId=2QDaNRHhgd4=&qsetName=CDC 06 2022 DILR)

Section-1

Directions for questions 1 to 6: Answer the questions on the basis of the information given below.

Gopi, Heera and Ramu are three ice cream vendors who buy stick ice creams of 4 brands – Amul, Mother Dairy, Creambell, and Vadilal. They sell these ice creams in five flavors - Choco Bar, Mango Duet, Raspberry Duet, Orange and Pine Apple.

The table given below shows the stick ice cream flavors sold by the vendors in packets. Each flavor packet contained one ice cream each of each brand that forms that packet.

Flavor	Packet
Choco Bar	Amul, Mother Dairy, Creambell, Vadilal
Mango Duet	Amul, Mother Dairy, Creambell
Raspberry Duet	Creambell, Mother Dairy, Vadilal
Orange	Amul, Mother Dairy
Pine Apple	Amul, Creambell

The cost of a stick ice cream of Amul, Mother Dairy, Creambell and Vadilal is Rs.6, Rs.5, Rs.4 and Rs.3 respectively. Each packet of a flavor is sold for a profit equal to 300% of the number of brands used to make that packet. For example, an orange flavored packet is made with two brands Amul and Mother Dairy and will be sold at a profit of Rs.6 per packet.

The table given below shows the sales revenue (in Rs.) for each vendor for 4 consecutive hours of the day. 3 PM to 4 PM is termed the last hour. During the last hour, the total revenue generated by each vendor is Rs.5 less than what he would have generated by selling the same number of packets in any other hour. No vendor had any packet of any flavor left unsold after the last hour.

Time	Gopi	Heera	Ramu
12 PM - 1PM	102	125	114
1 PM - 2 PM	175	137	116
2 PM - 3 PM	132	132	162
3 PM - 4 PM (Last hour)	57	49	52

The following additional facts are known.

- (i) The number of packets of any flavor sold in any hour by any vendor did not exceed 2.
- (ii) All vendors sold at least one packet of Orange flavor during all the hours.
- (iii) No vendor sold any packet of Choco Bar flavor in the last hour.
- (iv) Each vendor sold one packet each of three different flavors during the last hour.
- (v) Each vendor sold more than 3 flavors of packets from 12 PM to 1 PM. Gopi, Heera and Ramu sold 2, 1 and 0 packets of Choco Bar flavor respectively from 1 PM to 2 PM and they sold 1, 2 and 2 packets of Raspberry Duet flavor respectively from 2 PM to 3 PM.

Q.1 [11831809]

What was the number of Amul stick ice creams sold from 12 PM to 1 PM?

Solution:	م Answer key/Solution
4 C Either 12 or 13	
3 🔾 14	
2 🔾 13	
1 🔾 12	

Step 1: From the 1st table and given information:

Flavor	Cost Price (in Rs./Packet)	Selling Price (in Rs./Packet)
Choco Bar	6+5+4+3=18	18 + 3 × 4 = 30
Mango Duet	6+5+4=15	15 + 3 × 3 = 24
Raspberry Duet	5+4+3=12	12 + 3 × 3 = 21
Orange	6 + 5 = 11	11 + 3 × 2 = 17
Pine Apple	6 + 4 = 10	10 + 3 × 2 = 16

Step 2: If Choco Bar, Mango Duet, Raspberry Duet, Orange and Pine Apple flavors are represented by C, M, R, O and P respectively, then from the 2nd table and the conditions (i) to (v):

Actual sales revenue of Gopi in last hour = 57 + 5 = 62 = 1 Packet of Mango Duet + 1 Packet of Raspberry Duet + 1 Packet of Orange

Similarly, we can calculate for other values and can be shown in the following table.

Time	Gopi	Heera	Ramu
12 PM - 1 PM	0C, 2M, 1R, 1O, 1P	1C, 1M, 1R, 2O, 1P	2C, 0M, 1R, 1O, 1P
1 PM - 2 PM	2C, 1M, 2R, 1O, 2P	1C, 2M, 2R, 1O, 0P	0C, 1M, 2R, 2O, 1P
2 PM - 3 PM	1C, 2M, 1R, 10, 1P	0C, 1M, 2R, 2O, 2P	1C, 1M, 2R, 2O, 2P
3 PM - 4 PM (Last hour)	1M, 1R, 10	1R, 10, 1P	10, 1P, 1M

The number of Amul stick ice creams sold from 12 PM to 1 PM was 13.

Bookmark

Directions for questions 1 to 6: Answer the questions on the basis of the information given below.

Gopi, Heera and Ramu are three ice cream vendors who buy stick ice creams of 4 brands – Amul, Mother Dairy, Creambell, and Vadilal. They sell these ice creams in five flavors - Choco Bar, Mango Duet, Raspberry Duet, Orange and Pine Apple.

The table given below shows the stick ice cream flavors sold by the vendors in packets. Each flavor packet contained one ice cream each of each brand that forms that packet.

Flavor	Packet
Choco Bar	Amul, Mother Dairy, Creambell, Vadilal
Mango Duet	Amul, Mother Dairy, Creambell
Raspberry Duet	Creambell, Mother Dairy, Vadilal
Orange	Amul, Mother Dairy
Pine Apple	Amul, Creambell

The cost of a stick ice cream of Amul, Mother Dairy, Creambell and Vadilal is Rs.6, Rs.5, Rs.4 and Rs.3 respectively. Each packet of a flavor is sold for a profit equal to 300% of the number of brands used to make that packet. For example, an orange flavored packet is made with two brands Amul and Mother Dairy and will be sold at a profit of Rs.6 per packet.

The table given below shows the sales revenue (in Rs.) for each vendor for 4 consecutive hours of the day. 3 PM to 4 PM is termed the last hour. During the last hour, the total revenue generated by each vendor is Rs.5 less than what he would have generated by selling the same number of packets in any other hour. No vendor had any packet of any flavor left unsold after the last hour.

Time	Gopi	Heera	Ramu
12 PM - 1PM	102	125	114
1 PM - 2 PM	175	137	116
2 PM - 3 PM	132	132	162
3 PM - 4 PM (Last hour)	57	49	52

The following additional facts are known.

- (i) The number of packets of any flavor sold in any hour by any vendor did not exceed 2.
- (ii) All vendors sold at least one packet of Orange flavor during all the hours.
- (iii) No vendor sold any packet of Choco Bar flavor in the last hour.
- (iv) Each vendor sold one packet each of three different flavors during the last hour.
- (v) Each vendor sold more than 3 flavors of packets from 12 PM to 1 PM. Gopi, Heera and Ramu sold 2, 1 and 0 packets of Choco Bar flavor respectively from 1 PM to 2 PM and they sold 1, 2 and 2 packets of Raspberry Duet flavor respectively from 2 PM to 3 PM.

Q.2 [11831809]

Which of the following statements is/are correct for the last hour?

- I. Gopi sold 2 ice creams of Mother Dairy.
- II. Heera sold 3 ice creams of Creambell.
- III. Ramu sold 3 ice creams of Amul.

1 O I only	
2 O III only	
3 O I & III only	
4 O II & III only	

Solution:

Correct Answer: 2

Answer key/Solution

Step 1: From the 1st table and given information:

Flavor	Cost Price (in Rs./Packet)	Selling Price (in Rs./Packet)
Choco Bar	6+5+4+3=18	18 + 3 × 4 = 30
Mango Duet	6+5+4=15	15 + 3 × 3 = 24
Raspberry Duet	5+4+3=12	12 + 3 × 3 = 21
Orange	6 + 5 = 11	11 + 3 × 2 = 17
Pine Apple	6 + 4 = 10	10 + 3 × 2 = 16

Step 2: If Choco Bar, Mango Duet, Raspberry Duet, Orange and Pine Apple flavors are represented by C, M, R, O and P respectively, then from the 2nd table and the conditions (i) to (v):

Actual sales revenue of Gopi in last hour = 57 + 5 = 62 = 1 Packet of Mango Duet + 1 Packet of Raspberry Duet + 1 Packet of Orange

Similarly, we can calculate for other values and can be shown in the following table.

Time	Gopi	Heera	Ramu
12 PM - 1 PM	0C, 2M, 1R, 1O, 1P	1C, 1M, 1R, 2O, 1P	2C, 0M, 1R, 1O, 1P
1 PM - 2 PM	2C, 1M, 2R, 1O, 2P	1C, 2M, 2R, 1O, 0P	0C, 1M, 2R, 2O, 1P
2 PM - 3 PM	1C, 2M, 1R, 10, 1P	0C, 1M, 2R, 2O, 2P	1C, 1M, 2R, 2O, 2P
3 PM - 4 PM (Last hour)	1M, 1R, 10	1R, 10, 1P	10, 1P, 1M

The statement III is correct.

Bookmark

Directions for questions 1 to 6: Answer the questions on the basis of the information given below.

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The table given below shows the stick ice cream flavors sold by the vendors in packets. Each flavor packet contained one ice cream each of each brand that forms that packet.

Flavor	Packet
Choco Bar	Amul, Mother Dairy, Creambell, Vadilal
Mango Duet	Amul, Mother Dairy, Creambell
Raspberry Duet	Creambell, Mother Dairy, Vadilal
Orange	Amul, Mother Dairy
Pine Apple	Amul, Creambell

The cost of a stick ice cream of Amul, Mother Dairy, Creambell and Vadilal is Rs.6, Rs.5, Rs.4 and Rs.3 respectively. Each packet of a flavor is sold for a profit equal to 300% of the number of brands used to make that packet. For example, an orange flavored packet is made with two brands Amul and Mother Dairy and will be sold at a profit of Rs.6 per packet.

The table given below shows the sales revenue (in Rs.) for each vendor for 4 consecutive hours of the day. 3 PM to 4 PM is termed the last hour. During the last hour, the total revenue generated by each vendor is Rs.5 less than what he would have generated by selling the same number of packets in any other hour. No vendor had any packet of any flavor left unsold after the last hour.

Time	Gopi	Heera	Ramu
12 PM - 1PM	102	125	114
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3 PM - 4 PM (Last hour)	57	49	52

The following additional facts are known.

- (i) The number of packets of any flavor sold in any hour by any vendor did not exceed 2.
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- (iii) No vendor sold any packet of Choco Bar flavor in the last hour.
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- (v) Each vendor sold more than 3 flavors of packets from 12 PM to 1 PM. Gopi, Heera and Ramu sold 2, 1 and 0 packets of Choco Bar flavor respectively from 1 PM to 2 PM and they sold 1, 2 and 2 packets of Raspberry Duet flavor respectively from 2 PM to 3 PM.

Q.3 [11831809]

Which flavor sold the most number of packets from 1 PM to 2 PM?

Solution: Correct Answer : 4	م Answer key/Solution	
4 C Raspberry Duet		
3 Orange		
2 O Mango Duet		

Step 1: From the 1st table and given information:

Flavor	Cost Price (in Rs./Packet)	Selling Price (in Rs./Packet)
Choco Bar	6+5+4+3=18	18 + 3 × 4 = 30
Mango Duet	6+5+4=15	15 + 3 × 3 = 24
Raspberry Duet	5+4+3=12	12 + 3 × 3 = 21
Orange	6 + 5 = 11	11 + 3 × 2 = 17
Pine Apple	6 + 4 = 10	10 + 3 × 2 = 16

Step 2: If Choco Bar, Mango Duet, Raspberry Duet, Orange and Pine Apple flavors are represented by C, M, R, O and P respectively, then from the 2nd table and the conditions (i) to (v):

Actual sales revenue of Gopi in last hour = 57 + 5 = 62 = 1 Packet of Mango Duet + 1 Packet of Raspberry Duet + 1 Packet of Orange

Similarly, we can calculate for other values and can be shown in the following table.

Time	Gopi	Heera	Ramu
12 PM - 1 PM	0C, 2M, 1R, 1O, 1P	1C, 1M, 1R, 2O, 1P	2C, 0M, 1R, 1O, 1P
1 PM - 2 PM	2C, 1M, 2R, 1O, 2P	1C, 2M, 2R, 1O, 0P	0C, 1M, 2R, 2O, 1P
2 PM - 3 PM	1C, 2M, 1R, 10, 1P	0C, 1M, 2R, 2O, 2P	1C, 1M, 2R, 2O, 2P
3 PM - 4 PM (Last hour)	1M, 1R, 10	1R, 10, 1P	10, 1P, 1M

Raspberry Duet flavor sold the most number of packets from 1 PM to 2 PM.

Bookmark

Directions for questions 1 to 6: Answer the questions on the basis of the information given below.

Gopi, Heera and Ramu are three ice cream vendors who buy stick ice creams of 4 brands – Amul, Mother Dairy, Creambell, and Vadilal. They sell these ice creams in five flavors - Choco Bar, Mango Duet, Raspberry Duet, Orange and Pine Apple.

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Flavor	Packet
Choco Bar	Amul, Mother Dairy, Creambell, Vadilal
Mango Duet	Amul, Mother Dairy, Creambell
Raspberry Duet	Creambell, Mother Dairy, Vadilal
Orange	Amul, Mother Dairy
Pine Apple	Amul, Creambell

The cost of a stick ice cream of Amul, Mother Dairy, Creambell and Vadilal is Rs.6, Rs.5, Rs.4 and Rs.3 respectively. Each packet of a flavor is sold for a profit equal to 300% of the number of brands used to make that packet. For example, an orange flavored packet is made with two brands Amul and Mother Dairy and will be sold at a profit of Rs.6 per packet.

The table given below shows the sales revenue (in Rs.) for each vendor for 4 consecutive hours of the day. 3 PM to 4 PM is termed the last hour. During the last hour, the total revenue generated by each vendor is Rs.5 less than what he would have generated by selling the same number of packets in any other hour. No vendor had any packet of any flavor left unsold after the last hour.

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The following additional facts are known.

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The total number of Mother Dairy stick ice cream with Gopi and Heera initially was ______.

Correct Answer: 36

Answer key/Solution

Step 1: From the 1st table and given information:

Flavor	Cost Price (in Rs./Packet)	Selling Price (in Rs./Packet)
Choco Bar	6+5+4+3=18	18 + 3 × 4 = 30
Mango Duet	6+5+4=15	15 + 3 × 3 = 24
Raspberry Duet	5+4+3=12	12 + 3 × 3 = 21
Orange	6+5=11	11 + 3 × 2 = 17
Pine Apple	6 + 4 = 10	10 + 3 × 2 = 16

Step 2: If Choco Bar, Mango Duet, Raspberry Duet, Orange and Pine Apple flavors are represented by C, M, R, O and P respectively, then from the 2nd table and the conditions (i) to (v):

Actual sales revenue of Gopi in last hour = 57 + 5 = 62 = 1 Packet of Mango Duet + 1 Packet of Raspberry Duet + 1 Packet of Orange

Similarly, we can calculate for other values and can be shown in the following table.

Time	Gopi	Heera	Ramu
12 PM - 1 PM	0C, 2M, 1R, 1O, 1P	1C, 1M, 1R, 2O, 1P	2C, 0M, 1R, 1O, 1P
1 PM - 2 PM	2C, 1M, 2R, 1O, 2P	1C, 2M, 2R, 1O, 0P	0C, 1M, 2R, 2O, 1P
2 PM - 3 PM	1C, 2M, 1R, 1O, 1P	0C, 1M, 2R, 2O, 2P	1C, 1M, 2R, 2O, 2P
3 PM - 4 PM (Last hour)	1M, 1R, 10	1R, 10, 1P	10, 1P, 1M

The total number of Mother Dairy stick ice creams with Gopi and Heera initially was = 18 + 18 = 36.

Bookmark

Directions for questions 1 to 6: Answer the questions on the basis of the information given below.

Gopi, Heera and Ramu are three ice cream vendors who buy stick ice creams of 4 brands – Amul, Mother Dairy, Creambell, and Vadilal. They sell these ice creams in five flavors - Choco Bar, Mango Duet, Raspberry Duet, Orange and Pine Apple.

The table given below shows the stick ice cream flavors sold by the vendors in packets. Each flavor packet contained one ice cream each of each brand that forms that packet.

Flavor	Packet	
Choco Bar	Amul, Mother Dairy, Creambell, Vadilal	
Mango Duet	Amul, Mother Dairy, Creambell	
Raspberry Duet	Creambell, Mother Dairy, Vadilal	
Orange	Amul, Mother Dairy	
Pine Apple	Amul, Creambell	

The cost of a stick ice cream of Amul, Mother Dairy, Creambell and Vadilal is Rs.6, Rs.5, Rs.4 and Rs.3 respectively. Each packet of a flavor is sold for a profit equal to 300% of the number of brands used to make that packet. For example, an orange flavored packet is made with two brands Amul and Mother Dairy and will be sold at a profit of Rs.6 per packet.

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12 PM - 1PM	102	125	114
1 PM - 2 PM	175	137	116
2 PM - 3 PM	132	132	162
3 PM - 4 PM (Last hour)	57	49	52

The following additional facts are known.

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- (iv) Each vendor sold one packet each of three different flavors during the last hour.
- (v) Each vendor sold more than 3 flavors of packets from 12 PM to 1 PM. Gopi, Heera and Ramu sold 2, 1 and 0 packets of Choco Bar flavor respectively from 1 PM to 2 PM and they sold 1, 2 and 2 packets of Raspberry Duet flavor respectively from 2 PM to 3 PM.

Q.5 [11831809]

What was the difference between the total number of Amul stick ice creams sold by Gopi and the number of Creambell stick ice creams sold by Ramu?

Correct Answer: 1

Answer key/Solution

Step 1: From the 1st table and given information:

Flavor	Cost Price (in Rs./Packet)	Selling Price (in Rs./Packet)
Choco Bar	6+5+4+3=18	18 + 3 × 4 = 30
Mango Duet	6+5+4=15	15 + 3 × 3 = 24
Raspberry Duet	5+4+3=12	12 + 3 × 3 = 21
Orange	6 + 5 = 11	11 + 3 × 2 = 17
Pine Apple	6 + 4 = 10	10 + 3 × 2 = 16

Step 2: If Choco Bar, Mango Duet, Raspberry Duet, Orange and Pine Apple flavors are represented by C, M, R, O and P respectively, then from the 2nd table and the conditions (i) to (v):

Actual sales revenue of Gopi in last hour = 57 + 5 = 62 = 1 Packet of Mango Duet + 1 Packet of Raspberry Duet + 1 Packet of Orange

Similarly, we can calculate for other values and can be shown in the following table.

Time	Gopi	Heera	Ramu
12 PM - 1 PM	0C, 2M, 1R, 1O, 1P	1C, 1M, 1R, 2O, 1P	2C, 0M, 1R, 1O, 1P
1 PM - 2 PM	2C, 1M, 2R, 1O, 2P	1C, 2M, 2R, 1O, 0P	0C, 1M, 2R, 2O, 1P
2 PM - 3 PM	1C, 2M, 1R, 10, 1P	0C, 1M, 2R, 2O, 2P	1C, 1M, 2R, 2O, 2P
3 PM - 4 PM (Last hour)	1M, 1R, 10	1R, 10, 1P	10, 1P, 1M

Required difference = 17 - 16 = 1.

Bookmark

Directions for questions 1 to 6: Answer the questions on the basis of the information given below.

Gopi, Heera and Ramu are three ice cream vendors who buy stick ice creams of 4 brands – Amul, Mother Dairy, Creambell, and Vadilal. They sell these ice creams in five flavors - Choco Bar, Mango Duet, Raspberry Duet, Orange and Pine Apple.

The table given below shows the stick ice cream flavors sold by the vendors in packets. Each flavor packet contained one ice cream each of each brand that forms that packet.

Flavor	Packet	
Choco Bar	Amul, Mother Dairy, Creambell, Vadilal	
Mango Duet	Amul, Mother Dairy, Creambell	
Raspberry Duet	Creambell, Mother Dairy, Vadilal	
Orange	Amul, Mother Dairy	
Pine Apple	Amul, Creambell	

The cost of a stick ice cream of Amul, Mother Dairy, Creambell and Vadilal is Rs.6, Rs.5, Rs.4 and Rs.3 respectively. Each packet of a flavor is sold for a profit equal to 300% of the number of brands used to make that packet. For example, an orange flavored packet is made with two brands Amul and Mother Dairy and will be sold at a profit of Rs.6 per packet.

The table given below shows the sales revenue (in Rs.) for each vendor for 4 consecutive hours of the day. 3 PM to 4 PM is termed the last hour. During the last hour, the total revenue generated by each vendor is Rs.5 less than what he would have generated by selling the same number of packets in any other hour. No vendor had any packet of any flavor left unsold after the last hour.

Time	Gopi	Heera	Ramu
12 PM - 1PM	102	125	114
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The following additional facts are known.

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- (iv) Each vendor sold one packet each of three different flavors during the last hour.
- (v) Each vendor sold more than 3 flavors of packets from 12 PM to 1 PM. Gopi, Heera and Ramu sold 2, 1 and 0 packets of Choco Bar flavor respectively from 1 PM to 2 PM and they sold 1, 2 and 2 packets of Raspberry Duet flavor respectively from 2 PM to 3 PM.

Q.6 [11831809]

Which of the following brands had the second largest number of stick ice creams sold by three vendors during the four hours?

Solution: Correct Answer : 4	♣ Answer key/Solution
4 O Both (1) & (3)	
3 O Amul	
2 O Mother Dairy	
1 O Creambell	

Step 1: From the 1st table and given information:

Flavor	Cost Price (in Rs./Packet)	Selling Price (in Rs./Packet)
Choco Bar	6+5+4+3=18	18 + 3 × 4 = 30
Mango Duet	6+5+4=15	15 + 3 × 3 = 24
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Pine Apple	6 + 4 = 10	10 + 3 × 2 = 16

Step 2: If Choco Bar, Mango Duet, Raspberry Duet, Orange and Pine Apple flavors are represented by C, M, R, O and P respectively, then from the 2nd table and the conditions (i) to (v):

Actual sales revenue of Gopi in last hour = 57 + 5 = 62 = 1 Packet of Mango Duet + 1 Packet of Raspberry Duet + 1 Packet of Orange

Similarly, we can calculate for other values and can be shown in the following table.

Time	Gopi	Heera	Ramu	
12 PM - 1 PM	0C, 2M, 1R, 1O, 1P	1C, 1M, 1R, 2O, 1P	2C, 0M, 1R, 1O, 1P	
1 PM - 2 PM	2C, 1M, 2R, 1O, 2P	1C, 2M, 2R, 1O, 0P	0C, 1M, 2R, 2O, 1P	
2 PM - 3 PM	1C, 2M, 1R, 10, 1P	0C, 1M, 2R, 2O, 2P	1C, 1M, 2R, 2O, 2P	
3 PM - 4 PM (Last hour)	1M, 1R, 10	1R, 10, 1P	10, 1P, 1M	

Total number of stick ice creams sold by three vendors of:

Amul = 50; Mother Dairy = 53; Creambell = 50; Vadilal = 24

Hence, the second largest number of stick ice creams sold was both Amul and Creambell brands.

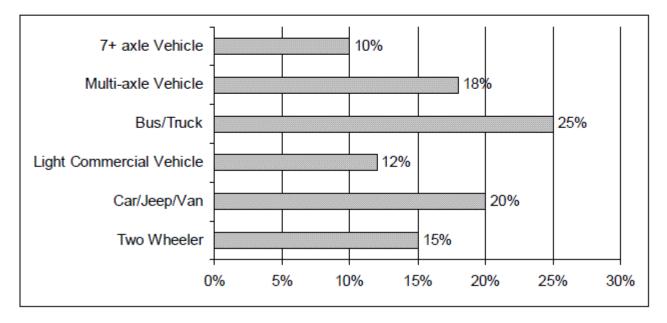
Bookmark

Directions for questions 7 to 10: Answer the questions on the basis of the information given below.

The table given below shows the amount (in Rs.) to be paid by the different types of vehicles to cross Agra Toll Plaza at Yamuna Express Way. The bar graph given below shows the percentage break-up of the types of vehicles that crossed the Agra Toll Plaza on a particular Sunday.

The amount was collected through FASTag at Agra Toll Plaza, but if the vehicles did not have FASTag, double of the actual amount was charged in cash.

Vehicle	Two	Car/Jeep/	Light Commercial	Bus/	Multi-axle	7+ axle
	Wheeler	Van	Vehicle	Truck	Vehicle	Vehicle
Toll Price per vehicle (in Rs.) [FASTag]	205	415	635	1295	1970	2250



Q.7 [11831809]

The amount collected from Multi-axle Vehicles at Agra Toll Plaza was what percent more/less than the amount collected from 7+ axle Vehicles on Sunday if all the Vehicles of both the categories were FASTag enabled?

1 36.5%	
2 🔾 57.6%	
3 0 63.6%	
4 🔾 53.5%	

Correct Answer: 2

Answer key/Solution

Let 'n' be the number of vehicles that crossed the Agra Toll Plaza on Sunday. Then, the amount collected from Multi-axle Vehicles = $0.18n \times 1970 = 354.6n$ and the amount collected from 7+ axle Vehicles = $0.1n \times 2250 = 225n$ Hence, the answer = $(354.6n - 225n)/225n \times 100 = 57.6\%$.

Bookmark

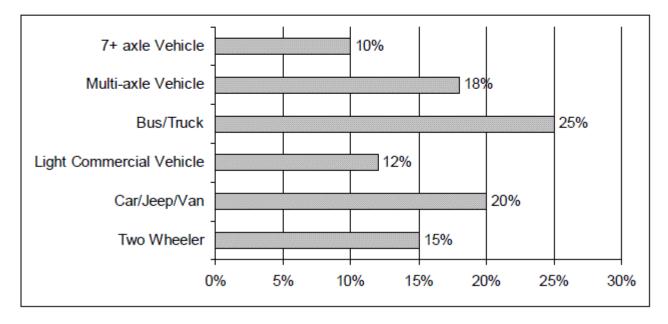
FeedBack

Directions for questions 7 to 10: Answer the questions on the basis of the information given below.

The table given below shows the amount (in Rs.) to be paid by the different types of vehicles to cross Agra Toll Plaza at Yamuna Express Way. The bar graph given below shows the percentage break-up of the types of vehicles that crossed the Agra Toll Plaza on a particular Sunday.

The amount was collected through FASTag at Agra Toll Plaza, but if the vehicles did not have FASTag, double of the actual amount was charged in cash.

Vehicle	Two	Car/Jeep/	Light Commercial	Bus/	Multi-axle	7+ axle
	Wheeler	Van	Vehicle	Truck	Vehicle	Vehicle
Toll Price per vehicle (in Rs.) [FASTag]	205	415	635	1295	1970	2250



Q.8 [11831809]

If 2% and 10% of the number of Buses/Trucks and 7+ axle Vehicles respectively crossing the Toll Plaza did not have FASTag on Sunday and the amount collected in cash from these Buses/Trucks was Rs.6,475, then how much extra amount (in Rs.) was collected in cash from these 7+ axle Vehicles on that day?

Solution:	
4 🔾 10,550	
3 🔾 11,250	
2 🔾 12,450	
1 22,500	

Correct Answer: 3

Let 'n' be the number of vehicles that crossed the Agra Toll Plaza on Sunday. Then, $0.25n \times 0.02 \times 1295 \times 2 = 6475$ \Rightarrow 12.95n = 6475 \Rightarrow n = 500 Hence, the extra amount collected in cash from 7+ axle Vehicles = $500 \times 0.1 \times 0.1 \times 2250 = Rs.11,250$.

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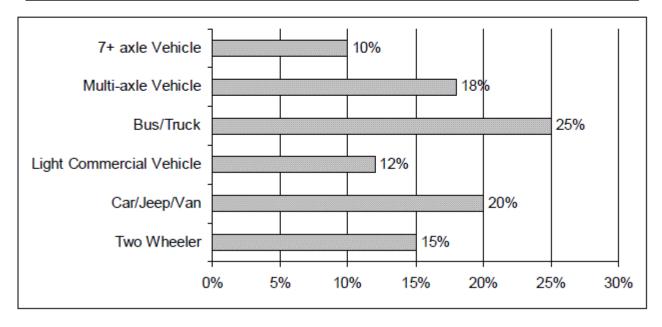
Answer key/Solution

Directions for questions 7 to 10: Answer the questions on the basis of the information given below.

The table given below shows the amount (in Rs.) to be paid by the different types of vehicles to cross Agra Toll Plaza at Yamuna Express Way. The bar graph given below shows the percentage break-up of the types of vehicles that crossed the Agra Toll Plaza on a particular Sunday.

The amount was collected through FASTag at Agra Toll Plaza, but if the vehicles did not have FASTag, double of the actual amount was charged in cash.

Vehicle	Two	Car/Jeep/	Light Commercial	Bus/	Multi-axle	7+ axle
	Wheeler	Van	Vehicle	Truck	Vehicle	Vehicle
Toll Price per vehicle (in Rs.) [FASTag]	205	415	635	1295	1970	2250



Q.9 [11831809]

Which of the following is the correct order for the total amount collected from different categories of vehicles crossing Agra Toll Plaza on Sunday if all the Vehicles of all categories were FASTag enabled?

1 Clight Commercial Vehicles > Cars/Jeep/Van > Two Wheelers
2 Bus/Truck > Light Commercial Vehicles > Cars/Jeep/Van
3 7 + Axle Vehicles > Multi-axle Vehicles > Light Commercial Vehicles
4 Multi-axle Vehicles > Bus/Truck > 7 + axle Vehicles

Correct Answer: 4

♠ Answer key/Solution

Let us find the total toll collected for each category (out of 100 vehicles):

Vehicle	Toll collected (in Rs.)
Tw o Wheeler	15 × 205 = 3,075
Car/Jeep/Van	20 × 415 = 8,300
Light Commercial Vehicle	12 × 635 = 7,620
Bus/Truck	25 × 1295 = 32,375
Multi-axle Vehicle	18 × 1970 = 35,460
7+ axle Vehicle	10 × 2250 = 22,500

Hence, we can see that Multi-axle Vehicles > Bus/Truck > 7+ axle Vehicles is the correct order.

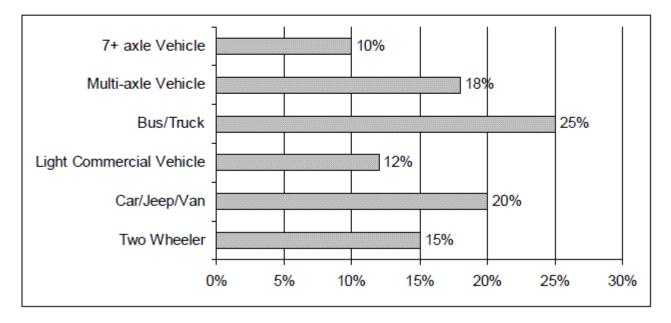
Bookmark

Directions for questions 7 to 10: Answer the questions on the basis of the information given below.

The table given below shows the amount (in Rs.) to be paid by the different types of vehicles to cross Agra Toll Plaza at Yamuna Express Way. The bar graph given below shows the percentage break-up of the types of vehicles that crossed the Agra Toll Plaza on a particular Sunday.

The amount was collected through FASTag at Agra Toll Plaza, but if the vehicles did not have FASTag, double of the actual amount was charged in cash.

Vehicle	Two	Car/Jeep/	Light Commercial	Bus/	Multi-axle	7+ axle
	Wheeler	Van	Vehicle	Truck	Vehicle	Vehicle
Toll Price per vehicle (in Rs.) [FASTag]	205	415	635	1295	1970	2250



Q.10 [11831809]

The ratio of the number of Buses and Trucks that crossed at Agra Toll plaza on Sunday was 2: 3 respectively and the difference between the amount collected from Trucks and the Multi-axle Vehicles was Rs. 1,28,280. If 15% of the number of Cars/Jeeps/Vans crossing the Toll Plaza did not have FASTag on that day, what was the number of these Cars/Jeeps/Vans?

Solution:

Correct Answer: 24

Answer key/Solution

Let 'n' be the number of vehicles that crossed the Agra Toll Plaza on Sunday. Then, $0.18n \times 1970 - 0.15n \times 1295 = 128280$

⇒ 354.6n - 194.25n = 128280

⇒ 334.0H = 194.23H = 1262

⇒ 160.35n = 128280

⇒ n = 800

Hence, the required number = $0.2 \times 0.15 \times 800 = 24$.

Bookmark

Directions for questions 11 to 16: Answer the questions on the basis of the information given below.

In a recently conducted elections in 9 constituencies – A, B, C, D, E, F, G, H and I – five parties – AAP, BAP, MAP, NAP, SAP – took part. Each constituency was won by a single party and in each constituency, either 3 or 4 parties contested the election. Each party won atleast one constituency. Following information is also known:

- (i) Combination of parties contesting from no two constituencies is the same.
- (ii) AAP, MAP and NAP contested from the same number of constituencies. The total number of constituencies won by these parties is 5.
- (iii) NAP won from two constituencies from where only 3 parties contested and defeated SAP.
- (iv) AAP won from H and was never able to defeat BAP, who won from E, where only 3 parties contested.
- (v) MAP defeated all other parties AAP, NAP and SAP in G.
- (vi) The number of constituencies from where 4 parties contested was not less than that of those from where 3 parties contested.
- (vii) Each of A, B, D and E had a different winner, and only 3 parties contested from B, C and H.
- (viii) The number of constituencies from BAP contested is one less than the number of constituencies from where SAP contested. BAP contested from the least number of constituencies.
- (ix) BAP never contested together with SAP and NAP from any constituency where 3 parties took part. E, F and I constituency have 3 common contesting parties.

Q.11 [11831809] What is the correct sequence of number of parties contesting from the constituencies A, D, F, and H respectively?
1 3, 4, 4, 3
2 0 4, 4, 4, 3
3 0 3, 3, 4, 3
4 \bigcirc 4, 3, 4, 3

Correct Answer: 2

4 Answer key/Solution

Step 1:

The number of different combinations of 4 parties out of 5 = 5

The number of different combinations of 3 parties out of 5 = 10

From conditions (i) and (vi), it can be deduced that there were five constituencies from each of which 4 parties contested and from each of the rest of 4 constituencies 3 parties contested.

Total number of appearances of the five parties across all constituencies = 5 × 4 + 3 × 4 = 32.

Direct information from the conditions:

Constituency - No. of parties contested.	Contested Parties	Winning Party
A – 4		
B-3		
C-3		
D-4		
E-3	BAP	BAP
F-4		
G-4	MAP, AAP, SAP, NAP	MAP
H-3	AAP	AAP
I – 4		

Step 2:

From conditions (ii) and (viii), AAP, MAP and NAP contested from 7 constituencies and BAP and SAP contested from 5 and 6 constituencies respectively.

The five combinations of 4 parties are:

AAP, MAP, NAP, BAP

AAP, MAP, NAP, SAP - Constituency G

MAP, NAP, BAP, SAP

AAP, NAP, BAP, SAP

AAP, MAP, BAP, SAP

From condition (iii), NAP won from two constituencies where 3 parties contested and they must be B and C. Also, NAP defeated SAP, so from other two parties one must be SAP. Also, AAP, never won from BAP, therefore, the parties who won from constituency A and D must be SAP and MAP. Since MAP, NAP, and AAP won in total of 5 constituencies, therefore, parties won in F and I must be either SAP or BAP or both BAP.

Constituency – No. of parties contested.	Contested Parties	Winning Party
A – 4	BAP	SAP/MAP
B-3	NAP, SAP,	NAP
C-3	NAP, SAP,	NAP
D-4	BAP	MAP/SAP
E-3	BAP	BAP
F-4	BAP	(SAP/BAP), BAP
G-4	MAP, AAP, SAP, NAP	MAP
H-3	AAP,	AAP
I – 4	BAP	(BAP/SAP), BAP

Step 3:

From condition (ix), we get the final table.

Constituency – No. of parties contested.	Contested Parties	Winning Party
A – 4	BAP, SAP, NAP, MAP/AAP	SAP/MAP
B-3	NAP, SAP, AAP/MAP	NAP
C-3	NAP, SAP, MAP/AAP	NAP
D-4	BAP, SAP, NAP, AAP/MAP	MAP/SAP
F_2	ΡΔΟ ΜΔΟ ΔΔΟ	RAD

	L-J	טרו, וארו, רררו	DAI	
The correct s	equence of number of parties contesting f	rBAPthe constituencies A	(6,4F, ⁴ afada 134F,	4, 4 and 3
respectively.	G-4	MAP, AAP, SAP, NAP	MAP	
Bookmar	k FeedBack H−3	AAP, MAP, NAP	AAP	
	-4	BAP, MAP, AAP, SAP/NAP	(BAP/SAP), BAP	

Directions for questions 11 to 16: Answer the questions on the basis of the information given below.

In a recently conducted elections in 9 constituencies – A, B, C, D, E, F, G, H and I – five parties – AAP, BAP, MAP, NAP, SAP – took part. Each constituency was won by a single party and in each constituency, either 3 or 4 parties contested the election. Each party won atleast one constituency. Following information is also known:

- (i) Combination of parties contesting from no two constituencies is the same.
- (ii) AAP, MAP and NAP contested from the same number of constituencies. The total number of constituencies won by these parties is 5.
- (iii) NAP won from two constituencies from where only 3 parties contested and defeated SAP.
- (iv) AAP won from H and was never able to defeat BAP, who won from E, where only 3 parties contested.
- (v) MAP defeated all other parties AAP, NAP and SAP in G.
- (vi) The number of constituencies from where 4 parties contested was not less than that of those from where 3 parties contested.
- (vii) Each of A, B, D and E had a different winner, and only 3 parties contested from B, C and H.
- (viii) The number of constituencies from BAP contested is one less than the number of constituencies from where SAP contested. BAP contested from the least number of constituencies.
- (ix) BAP never contested together with SAP and NAP from any constituency where 3 parties took part.
- E, F and I constituency have 3 common contesting parties.

Q.12 [11831809] How many contesting parties are same for constituency D, E and F?
1 00
2 🔾 1
3 🔾 2
4 C Either (2) or (3)

Correct Answer: 3

4 Answer key/Solution

Step 1:

The number of different combinations of 4 parties out of 5 = 5

The number of different combinations of 3 parties out of 5 = 10

From conditions (i) and (vi), it can be deduced that there were five constituencies from each of which 4 parties contested and from each of the rest of 4 constituencies 3 parties contested.

Total number of appearances of the five parties across all constituencies = 5 × 4 + 3 × 4 = 32.

Direct information from the conditions:

Constituency - No. of parties contested.	Contested Parties	Winning Party
A – 4		
B-3		
C-3		
D-4		
E-3	BAP	BAP
F-4		
G-4	MAP, AAP, SAP, NAP	MAP
H-3	AAP	AAP
I – 4		

Step 2:

From conditions (ii) and (viii), AAP, MAP and NAP contested from 7 constituencies and BAP and SAP contested from 5 and 6 constituencies respectively.

The five combinations of 4 parties are:

AAP, MAP, NAP, BAP

AAP, MAP, NAP, SAP - Constituency G

MAP, NAP, BAP, SAP

AAP, NAP, BAP, SAP

AAP, MAP, BAP, SAP

From condition (iii), NAP won from two constituencies where 3 parties contested and they must be B and C. Also, NAP defeated SAP, so from other two parties one must be SAP. Also, AAP, never won from BAP, therefore, the parties who won from constituency A and D must be SAP and MAP. Since MAP, NAP, and AAP won in total of 5 constituencies, therefore, parties won in F and I must be either SAP or BAP or both BAP.

Constituency – No. of parties contested.	Contested Parties	Winning Party
A – 4	BAP	SAP/MAP
B-3	NAP, SAP,	NAP
C-3	NAP, SAP,	NAP
D-4	BAP	MAP/SAP
E-3	BAP	BAP
F-4	BAP	(SAP/BAP), BAP
G-4	MAP, AAP, SAP, NAP	MAP
H-3	AAP,	AAP
I – 4	BAP	(BAP/SAP), BAP

Step 3:

From condition (ix), we get the final table.

Constituency – No. of parties contested.	Contested Parties	Winning Party
A – 4	BAP, SAP, NAP, MAP/AAP	SAP/MAP
B-3	NAP, SAP, AAP/MAP	NAP
C-3	NAP, SAP, MAP/AAP	NAP
D-4	BAP, SAP, NAP, AAP/MAP	MAP/SAP
F_2	ΡΔΟ ΜΔΟ ΔΔΟ	RAD

	I		L-J		טרו, וארו, רורו	DΛI
The cont	estin	g pa	arties same for constituency	D, E and F	BAPBAP and only out of	(AAP 6 PMAN BAP
			two contesting-parties.		MAP, AAP, SAP, NAP	MAP
Bool	kmar	k	FeedBack H-3		AAP, MAP, NAP	AAP
			1-4		BAP, MAP, AAP, SAP/NAP	(BAP/SAP), BAP

Directions for questions 11 to 16: Answer the questions on the basis of the information given below.

In a recently conducted elections in 9 constituencies – A, B, C, D, E, F, G, H and I – five parties – AAP, BAP, MAP, NAP, SAP – took part. Each constituency was won by a single party and in each constituency, either 3 or 4 parties contested the election. Each party won atleast one constituency. Following information is also known:

- (i) Combination of parties contesting from no two constituencies is the same.
- (ii) AAP, MAP and NAP contested from the same number of constituencies. The total number of constituencies won by these parties is 5.
- (iii) NAP won from two constituencies from where only 3 parties contested and defeated SAP.
- (iv) AAP won from H and was never able to defeat BAP, who won from E, where only 3 parties contested.
- (v) MAP defeated all other parties AAP, NAP and SAP in G.
- (vi) The number of constituencies from where 4 parties contested was not less than that of those from where 3 parties contested.
- (vii) Each of A, B, D and E had a different winner, and only 3 parties contested from B, C and H.
- (viii) The number of constituencies from BAP contested is one less than the number of constituencies from where SAP contested. BAP contested from the least number of constituencies.
- (ix) BAP never contested together with SAP and NAP from any constituency where 3 parties took part.
- E, F and I constituency have 3 common contesting parties.

Q.13 [11831809]

For how many constituencies, can all the parties contesting from there be determined?

Correct Answer: 3

4 Answer key/Solution

Step 1:

The number of different combinations of 4 parties out of 5 = 5

The number of different combinations of 3 parties out of 5 = 10

From conditions (i) and (vi), it can be deduced that there were five constituencies from each of which 4 parties contested and from each of the rest of 4 constituencies 3 parties contested.

Total number of appearances of the five parties across all constituencies = 5 × 4 + 3 × 4 = 32.

Direct information from the conditions:

Constituency - No. of parties contested.	Contested Parties	Winning Party
A – 4		
B-3		
C-3		
D-4		
E-3	BAP	BAP
F-4		
G-4	MAP, AAP, SAP, NAP	MAP
H-3	AAP	AAP
I – 4		

Step 2:

From conditions (ii) and (viii), AAP, MAP and NAP contested from 7 constituencies and BAP and SAP contested from 5 and 6 constituencies respectively.

The five combinations of 4 parties are:

AAP, MAP, NAP, BAP

AAP, MAP, NAP, SAP - Constituency G

MAP, NAP, BAP, SAP

AAP, NAP, BAP, SAP

AAP, MAP, BAP, SAP

From condition (iii), NAP won from two constituencies where 3 parties contested and they must be B and C. Also, NAP defeated SAP, so from other two parties one must be SAP. Also, AAP, never won from BAP, therefore, the parties who won from constituency A and D must be SAP and MAP. Since MAP, NAP, and AAP won in total of 5 constituencies, therefore, parties won in F and I must be either SAP or BAP or both BAP.

Constituency – No. of parties contested.	Contested Parties	Winning Party
A – 4	BAP	SAP/MAP
B-3	NAP, SAP,	NAP
C-3	NAP, SAP,	NAP
D-4	BAP	MAP/SAP
E-3	BAP	BAP
F-4	BAP	(SAP/BAP), BAP
G-4	MAP, AAP, SAP, NAP	MAP
H-3	AAP,	AAP
I – 4	BAP	(BAP/SAP), BAP

Step 3:

From condition (ix), we get the final table.

Constituency – No. of parties contested.	Contested Parties	Winning Party
A – 4	BAP, SAP, NAP, MAP/AAP	SAP/MAP
B-3	NAP, SAP, AAP/MAP	NAP
C-3	NAP, SAP, MAP/AAP	NAP
D-4	BAP, SAP, NAP, AAP/MAP	MAP/SAP
F_2	ΡΔΟ ΜΔΟ ΔΔΟ	RAD

	L-J	טרו , וארו , ררו	ואט
For 3 constitu	encies, can all the parties contesting from	there can be determined	(SAP/BAP), BAP
Bookmar	G-4	MAP, AAP, SAP, NAP	MAP
	H-3	AAP, MAP, NAP	AAP
	1-4	BAP, MAP, AAP, SAP/NAP	(BAP/SAP), BAP

Directions for questions 11 to 16: Answer the questions on the basis of the information given below.

In a recently conducted elections in 9 constituencies – A, B, C, D, E, F, G, H and I – five parties – AAP, BAP, MAP, NAP, SAP – took part. Each constituency was won by a single party and in each constituency, either 3 or 4 parties contested the election. Each party won atleast one constituency. Following information is also known:

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- (ii) AAP, MAP and NAP contested from the same number of constituencies. The total number of constituencies won by these parties is 5.
- (iii) NAP won from two constituencies from where only 3 parties contested and defeated SAP.
- (iv) AAP won from H and was never able to defeat BAP, who won from E, where only 3 parties contested.
- (v) MAP defeated all other parties AAP, NAP and SAP in G.
- (vi) The number of constituencies from where 4 parties contested was not less than that of those from where 3 parties contested.
- (vii) Each of A, B, D and E had a different winner, and only 3 parties contested from B, C and H.
- (viii) The number of constituencies from BAP contested is one less than the number of constituencies from where SAP contested. BAP contested from the least number of constituencies.
- (ix) BAP never contested together with SAP and NAP from any constituency where 3 parties took part. E, F and I constituency have 3 common contesting parties.

Q.14 [11831809] Which of the following statements is NEVER true with respect to SAP?
1 O The party won in constituency A.
2 The party defeated AAP, MAP and BAP in constituency I.
3 O The party won from 3 constituencies.
4 SAP contested from 6 constituencies.

Correct Answer: 3

4 Answer key/Solution

Step 1:

The number of different combinations of 4 parties out of 5 = 5

The number of different combinations of 3 parties out of 5 = 10

From conditions (i) and (vi), it can be deduced that there were five constituencies from each of which 4 parties contested and from each of the rest of 4 constituencies 3 parties contested.

Total number of appearances of the five parties across all constituencies = 5 × 4 + 3 × 4 = 32.

Direct information from the conditions:

Constituency - No. of parties contested.	Contested Parties	Winning Party
A – 4		
B-3		
C-3		
D-4		
E-3	BAP	BAP
F-4		
G-4	MAP, AAP, SAP, NAP	MAP
H-3	AAP	AAP
I – 4		

Step 2:

From conditions (ii) and (viii), AAP, MAP and NAP contested from 7 constituencies and BAP and SAP contested from 5 and 6 constituencies respectively.

The five combinations of 4 parties are:

AAP, MAP, NAP, BAP

AAP, MAP, NAP, SAP - Constituency G

MAP, NAP, BAP, SAP

AAP, NAP, BAP, SAP

AAP, MAP, BAP, SAP

From condition (iii), NAP won from two constituencies where 3 parties contested and they must be B and C. Also, NAP defeated SAP, so from other two parties one must be SAP. Also, AAP, never won from BAP, therefore, the parties who won from constituency A and D must be SAP and MAP. Since MAP, NAP, and AAP won in total of 5 constituencies, therefore, parties won in F and I must be either SAP or BAP or both BAP.

Constituency – No. of parties contested.	Contested Parties	Winning Party
A – 4	BAP	SAP/MAP
B-3	NAP, SAP,	NAP
C-3	NAP, SAP,	NAP
D-4	BAP	MAP/SAP
E-3	BAP	BAP
F-4	BAP	(SAP/BAP), BAP
G-4	MAP, AAP, SAP, NAP	MAP
H-3	AAP,	AAP
I – 4	BAP	(BAP/SAP), BAP

Step 3:

From condition (ix), we get the final table.

Constituency – No. of parties contested.	Contested Parties	Winning Party
A – 4	BAP, SAP, NAP, MAP/AAP	SAP/MAP
B-3	NAP, SAP, AAP/MAP	NAP
C-3	NAP, SAP, MAP/AAP	NAP
D-4	BAP, SAP, NAP, AAP/MAP	MAP/SAP
F_2	ΡΔΟ ΜΔΟ ΔΔΟ	RAD

		L	L	J	טמו, ואמו, ממו	ואט
SAP can	neve	r wi	n from 3 constit	uencies.	BAP, MAP, AAP, NAP/SAP	(SAP/BAP), BAP
Book	mar	k	FeedBack	G-4	MAP, AAP, SAP, NAP	MAP
			H-3	AAP, MAP, NAP	AAP	
			I	-4	BAP, MAP, AAP, SAP/NAP	(BAP/SAP), BAP

Directions for questions 11 to 16: Answer the questions on the basis of the information given below.

In a recently conducted elections in 9 constituencies – A, B, C, D, E, F, G, H and I – five parties – AAP, BAP, MAP, NAP, SAP – took part. Each constituency was won by a single party and in each constituency, either 3 or 4 parties contested the election. Each party won atleast one constituency. Following information is also known:

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- (ii) AAP, MAP and NAP contested from the same number of constituencies. The total number of constituencies won by these parties is 5.
- (iii) NAP won from two constituencies from where only 3 parties contested and defeated SAP.
- (iv) AAP won from H and was never able to defeat BAP, who won from E, where only 3 parties contested.
- (v) MAP defeated all other parties AAP, NAP and SAP in G.
- (vi) The number of constituencies from where 4 parties contested was not less than that of those from where 3 parties contested.
- (vii) Each of A, B, D and E had a different winner, and only 3 parties contested from B, C and H.
- (viii) The number of constituencies from BAP contested is one less than the number of constituencies from where SAP contested. BAP contested from the least number of constituencies.
- (ix) BAP never contested together with SAP and NAP from any constituency where 3 parties took part. E, F and I constituency have 3 common contesting parties.

Correct Answer: 4

4 Answer key/Solution

Step 1:

The number of different combinations of 4 parties out of 5 = 5

The number of different combinations of 3 parties out of 5 = 10

From conditions (i) and (vi), it can be deduced that there were five constituencies from each of which 4 parties contested and from each of the rest of 4 constituencies 3 parties contested.

Total number of appearances of the five parties across all constituencies = 5 × 4 + 3 × 4 = 32.

Direct information from the conditions:

Constituency - No. of parties contested.	Contested Parties	Winning Party
A – 4		
B-3		
C-3		
D-4		
E-3	BAP	BAP
F-4		
G-4	MAP, AAP, SAP, NAP	MAP
H-3	AAP	AAP
I – 4		

Step 2:

From conditions (ii) and (viii), AAP, MAP and NAP contested from 7 constituencies and BAP and SAP contested from 5 and 6 constituencies respectively.

The five combinations of 4 parties are:

AAP, MAP, NAP, BAP

AAP, MAP, NAP, SAP - Constituency G

MAP, NAP, BAP, SAP

AAP, NAP, BAP, SAP

AAP, MAP, BAP, SAP

From condition (iii), NAP won from two constituencies where 3 parties contested and they must be B and C. Also, NAP defeated SAP, so from other two parties one must be SAP. Also, AAP, never won from BAP, therefore, the parties who won from constituency A and D must be SAP and MAP. Since MAP, NAP, and AAP won in total of 5 constituencies, therefore, parties won in F and I must be either SAP or BAP or both BAP.

Constituency – No. of parties contested.	Contested Parties	Winning Party
A – 4	BAP	SAP/MAP
B-3	NAP, SAP,	NAP
C-3	NAP, SAP,	NAP
D-4	BAP	MAP/SAP
E-3	BAP	BAP
F-4	BAP	(SAP/BAP), BAP
G-4	MAP, AAP, SAP, NAP	MAP
H-3	AAP,	AAP
I – 4	BAP	(BAP/SAP), BAP

Step 3:

From condition (ix), we get the final table.

Constituency – No. of parties contested.	Contested Parties	Winning Party
A – 4	BAP, SAP, NAP, MAP/AAP	SAP/MAP
B-3	NAP, SAP, AAP/MAP	NAP
C-3	NAP, SAP, MAP/AAP	NAP
D-4	BAP, SAP, NAP, AAP/MAP	MAP/SAP
F_2	ΡΔΟ ΜΔΟ ΔΔΟ	RAD

I	L-J	טרו , וארו , ררו	ואט
Parties that c	ould have lost the election in C are SAP an	dene war of Male of SAR	(SAP/BAP), BAP
Bookmar	k FeedBack G-4	MAP, AAP, SAP, NAP	MAP
	H-3	AAP, MAP, NAP	AAP
	1-4	BAP, MAP, AAP, SAP/NAP	(BAP/SAP), BAP

Directions for questions 11 to 16: Answer the questions on the basis of the information given below.

In a recently conducted elections in 9 constituencies – A, B, C, D, E, F, G, H and I – five parties – AAP, BAP, MAP, NAP, SAP – took part. Each constituency was won by a single party and in each constituency, either 3 or 4 parties contested the election. Each party won atleast one constituency. Following information is also known:

- (i) Combination of parties contesting from no two constituencies is the same.
- (ii) AAP, MAP and NAP contested from the same number of constituencies. The total number of constituencies won by these parties is 5.
- (iii) NAP won from two constituencies from where only 3 parties contested and defeated SAP.
- (iv) AAP won from H and was never able to defeat BAP, who won from E, where only 3 parties contested.
- (v) MAP defeated all other parties AAP, NAP and SAP in G.
- (vi) The number of constituencies from where 4 parties contested was not less than that of those from where 3 parties contested.
- (vii) Each of A, B, D and E had a different winner, and only 3 parties contested from B, C and H.
- (viii) The number of constituencies from BAP contested is one less than the number of constituencies from where SAP contested. BAP contested from the least number of constituencies.
- (ix) BAP never contested together with SAP and NAP from any constituency where 3 parties took part. E, F and I constituency have 3 common contesting parties.

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- I. BAP won from the maximum number of constituencies.
- II. MAP defeated SAP, NAP and BAP in D.

III. BAP defeated SAP, NAP and AAP in F.
1 \bigcirc I only
2 O II & III only
3 O III only
4 O I & II only

Correct Answer: 3

4 Answer key/Solution

Step 1:

The number of different combinations of 4 parties out of 5 = 5

The number of different combinations of 3 parties out of 5 = 10

From conditions (i) and (vi), it can be deduced that there were five constituencies from each of which 4 parties contested and from each of the rest of 4 constituencies 3 parties contested.

Total number of appearances of the five parties across all constituencies = 5 × 4 + 3 × 4 = 32.

Direct information from the conditions:

Constituency - No. of parties contested.	Contested Parties	Winning Party
A – 4		
B-3		
C-3		
D-4		
E-3	BAP	BAP
F-4		
G-4	MAP, AAP, SAP, NAP	MAP
H-3	AAP	AAP
I – 4		

Step 2:

From conditions (ii) and (viii), AAP, MAP and NAP contested from 7 constituencies and BAP and SAP contested from 5 and 6 constituencies respectively.

The five combinations of 4 parties are:

AAP, MAP, NAP, BAP

AAP, MAP, NAP, SAP - Constituency G

MAP, NAP, BAP, SAP

AAP, NAP, BAP, SAP

AAP, MAP, BAP, SAP

From condition (iii), NAP won from two constituencies where 3 parties contested and they must be B and C. Also, NAP defeated SAP, so from other two parties one must be SAP. Also, AAP, never won from BAP, therefore, the parties who won from constituency A and D must be SAP and MAP. Since MAP, NAP, and AAP won in total of 5 constituencies, therefore, parties won in F and I must be either SAP or BAP or both BAP.

Constituency – No. of parties contested.	Contested Parties	Winning Party
A – 4	BAP	SAP/MAP
B-3	NAP, SAP,	NAP
C-3	NAP, SAP,	NAP
D-4	BAP	MAP/SAP
E-3	BAP	BAP
F-4	BAP	(SAP/BAP), BAP
G-4	MAP, AAP, SAP, NAP	MAP
H-3	AAP,	AAP
I – 4	BAP	(BAP/SAP), BAP

Step 3:

From condition (ix), we get the final table.

Constituency – No. of parties contested.	Contested Parties	Winning Party
A – 4	BAP, SAP, NAP, MAP/AAP	SAP/MAP
B-3	NAP, SAP, AAP/MAP	NAP
C-3	NAP, SAP, MAP/AAP	NAP
D-4	BAP, SAP, NAP, AAP/MAP	MAP/SAP
F_2	ΡΔΟ ΜΔΟ ΔΔΟ	RAD

	L				טרו , וארו , ררו	DAI	l
In	F, the parties	s co	ntesting are B	ĀŖ MAP, AAP and (NAF	BASAM), therefore, BAB	can Plever defea	the
СО	mbination of	f S/	AP, NAP and AA	p -4	MAP, AAP, SAP, NAP	MAP	
He	nce, only thi	is s	tatement can N	ÆV € R be true.	AAP, MAP, NAP	AAP	
	Bookmark		FeedBack	l – 4	BAP, MAP, AAP, SAP/NAP	(BAP/SAP), BAP	

Directions for questions 17 to 20: Answer the questions on the basis of the information given below.

In a reality show for budding writers there are 10 rounds and four participants Ann, Ben, Cyn and Dan. In each round a situation along with the conclusion are posed and the four participants either agree or disagree (A or D) with the conclusion. They get points based on some conditions and the winner get a chance to be a script writer for their upcoming show.

The table below gives the points earned by the participants based on how many of them agree or disagree with the conclusion. For example: If 3 participants disagree, they get -5 points each and 1 participant who agrees gets +10 points.

Agree Disagree	0	1	2	3	4
0	×	×	×	×	+10 0
1	×	×	×	+5 -10	×
2	×	×	2 3	×	×
3	×	+10 -5	×	×	×
4	+2 0	×	×	×	×

Further, it is also known that:

- (i) At the end of the 3rd round Ann and Dan have 7 points each whereas Cyn has agreed to all three conclusions and scored 23 points.
- (ii) At the end of the 6th round Ann and Dan have increased their scores by 10 points since the 3rd round whereas the digits of Cyn's score have reversed and Ben has the lowest score with 2 points.
- (iii) Out of the 10 rounds, Ann and Dan have the same opinion (either agree or disagree) in 8 rounds.
- (iv) At the end of the 10th round Ann and Ben have 29 points each whereas Cyn and Dan have 45 and 15 points respectively.
- (v) All of them had the same opinion in exactly 3 rounds namely the 1st, 5th and 10th rounds. Ann and Ben have the same opinion in the 7th and 8th rounds.
- (vi) From the 8th round to the 10th round the maximum increase was in Ben's score and it was 20 points.

Q.17 [11831809] What were the answers of Ann, Ben, Cyn and Dan in the 3rd round if exactly two persons agree to the conclusion in the 2nd round?
1 O A, D, A, D
2 O, D, A, D
3 O A, D, D, D
4 O D, A, A, A

Correct Answer: 2

Answer key/Solution

Step 1:

From condition (i), Cyn has agreed to the conclusions in the first 3 rounds. This means that all of them agreed in the 1st round. Also, from the scores at the end of the 3rd round we can say that in one out of the 2nd and 3rd rounds Ben agreed with Cyn while the other two disagreed whereas in the remaining round other than Cyn all others disagreed.

From conditions (iv) and (vi), Let us look at the last two rounds (9th and 10th). We know that all of them gave the same opinion in the 10th round, also Ben's score increase by 20 points from the 8th to the 10th round, so he must have scored 10 points in both rounds. Hence, all of them agreed to the conclusion in the 10th round whereas only Ben agreed in the 9th round.

From conditions (iii) and (v), Next going in the reverse order, we get the scores for the 8th round. We already have the scores for the participants at the end of the 6th round. So we find out their opinions in the 7th and 8th rounds. Ann and Ben have gained 7 points whereas Cyn has gained 8 points; also Dan has lost 7 points.

Step 2:

With this situation, we get the following results for the two rounds: Ann and Ben disagree whereas Cyn and Dan agree thereby scoring (+2, +2, +3, +3). In the remaining round Dan disagrees whereas the others agree. Thereby scoring (+5, +5, +5, +5)

In the 5th round all of them have the same opinion. They all have to disagree; otherwise Ben's score will be a violation. So in the 5th round scores are (+2, +2, +2 +2).

From condition (ii), Ben's score has decreased by 6 form the 3rd to the 6th round, so in the remaining two rounds Ben must have -8 points, this means that -10 in one and +2 in the other. This clearly shows that in one round all except Ben agree to the conclusion thereby the scores are (+5, -10, +5, +5) whereas in the remaining round two agree and two disagree.

Step 3:

Cyn's score has increased by 9 so in the remaining round the scores will be (+3, +2, +2, +3). So, now we have the scores for all the rounds. This can be represented in a table as follows:

Round	Ann	Ben	Cyn	Dan
1	10	10	10	10
2/3	- 5	-5	10	-5
3/2	2	3	3	2
Score at the end of 3rd round	7	8	23	7
4/6	5	-10	5	5
5	2	2	2	2
6/2	3	2	2	3
Score at the end of 6th round	17	2	32	17
7/8	2	2	3	3
8/7	5	5	5	-10
Score at the end of 8th round	24	9	40	10
9	-5	10	-5	-5
10	10	10	10	10
Score at the end of 10th round	29	29	45	15

We can see that in the 3rd round Ann, Ben and Dan disagree whereas Cyn agrees.

Bookmark

Directions for questions 17 to 20: Answer the questions on the basis of the information given below.

In a reality show for budding writers there are 10 rounds and four participants Ann, Ben, Cyn and Dan. In each round a situation along with the conclusion are posed and the four participants either agree or disagree (A or D) with the conclusion. They get points based on some conditions and the winner get a chance to be a script writer for their upcoming show.

The table below gives the points earned by the participants based on how many of them agree or disagree with the conclusion. For example: If 3 participants disagree, they get -5 points each and 1 participant who agrees gets +10 points.

Agree Disagree	0	1	2	3	4
0	×	×	×	×	+10 0
1	×	×	×	+5 -10	×
2	×	×	2 3	×	×
3	×	+10 -5	×	×	×
4	+2 0	×	×	×	×

Further, it is also known that:

- (i) At the end of the 3rd round Ann and Dan have 7 points each whereas Cyn has agreed to all three conclusions and scored 23 points.
- (ii) At the end of the 6th round Ann and Dan have increased their scores by 10 points since the 3rd round whereas the digits of Cyn's score have reversed and Ben has the lowest score with 2 points.
- (iii) Out of the 10 rounds, Ann and Dan have the same opinion (either agree or disagree) in 8 rounds.
- (iv) At the end of the 10th round Ann and Ben have 29 points each whereas Cyn and Dan have 45 and 15 points respectively.
- (v) All of them had the same opinion in exactly 3 rounds namely the 1st, 5th and 10th rounds. Ann and Ben have the same opinion in the 7th and 8th rounds.
- (vi) From the 8th round to the 10th round the maximum increase was in Ben's score and it was 20 points.

Q.18 [11831809] In how many out of the ten rounds did Cyn agree with the conclusion?
1 O Five
2 O Four
3 O Six
4 O Seven

Correct Answer: 4

Answer key/Solution

Step 1:

From condition (i), Cyn has agreed to the conclusions in the first 3 rounds. This means that all of them agreed in the 1st round. Also, from the scores at the end of the 3rd round we can say that in one out of the 2nd and 3rd rounds Ben agreed with Cyn while the other two disagreed whereas in the remaining round other than Cyn all others disagreed.

From conditions (iv) and (vi), Let us look at the last two rounds (9th and 10th). We know that all of them gave the same opinion in the 10th round, also Ben's score increase by 20 points from the 8th to the 10th round, so he must have scored 10 points in both rounds. Hence, all of them agreed to the conclusion in the 10th round whereas only Ben agreed in the 9th round.

From conditions (iii) and (v), Next going in the reverse order, we get the scores for the 8th round. We already have the scores for the participants at the end of the 6th round. So we find out their opinions in the 7th and 8th rounds. Ann and Ben have gained 7 points whereas Cyn has gained 8 points; also Dan has lost 7 points.

Step 2:

With this situation, we get the following results for the two rounds: Ann and Ben disagree whereas Cyn and Dan agree thereby scoring (+2, +2, +3, +3). In the remaining round Dan disagrees whereas the others agree. Thereby scoring (+5, +5, +5, +5)

In the 5th round all of them have the same opinion. They all have to disagree; otherwise Ben's score will be a violation. So in the 5th round scores are (+2, +2, +2 +2).

From condition (ii), Ben's score has decreased by 6 form the 3rd to the 6th round, so in the remaining two rounds Ben must have -8 points, this means that -10 in one and +2 in the other. This clearly shows that in one round all except Ben agree to the conclusion thereby the scores are (+5, -10, +5, +5) whereas in the remaining round two agree and two disagree.

Step 3:

Cyn's score has increased by 9 so in the remaining round the scores will be (+3, +2, +2, +3). So, now we have the scores for all the rounds. This can be represented in a table as follows:

Round	Ann	Ben	Cyn	Dan
1	10	10	10	10
2/3	- 5	-5	10	-5
3/2	2	3	3	2
Score at the end of 3rd round	7	8	23	7
4/6	5	-10	5	5
5	2	2	2	2
6/2	3	2	2	3
Score at the end of 6th round	17	2	32	17
7/8	2	2	3	3
8/7	5	5	5	-10
Score at the end of 8th round	24	9	40	10
9	-5	10	-5	-5
10	10	10	10	10
Score at the end of 10th round	29	29	45	15

From the table, it is clear that Cyn agreed with the presented conclusion in seven rounds.

Bookmark

Directions for questions 17 to 20: Answer the questions on the basis of the information given below.

In a reality show for budding writers there are 10 rounds and four participants Ann, Ben, Cyn and Dan. In each round a situation along with the conclusion are posed and the four participants either agree or disagree (A or D) with the conclusion. They get points based on some conditions and the winner get a chance to be a script writer for their upcoming show.

The table below gives the points earned by the participants based on how many of them agree or disagree with the conclusion. For example: If 3 participants disagree, they get -5 points each and 1 participant who agrees gets +10 points.

Agree Disagree	0	1	2	3	4
0	×	×	×	×	+10 0
1	×	×	×	+5 -10	×
2	×	×	2 3	×	×
3	×	+10 -5	×	×	×
4	+2 0	×	×	×	×

Further, it is also known that:

- (i) At the end of the 3rd round Ann and Dan have 7 points each whereas Cyn has agreed to all three conclusions and scored 23 points.
- (ii) At the end of the 6th round Ann and Dan have increased their scores by 10 points since the 3rd round whereas the digits of Cyn's score have reversed and Ben has the lowest score with 2 points.
- (iii) Out of the 10 rounds, Ann and Dan have the same opinion (either agree or disagree) in 8 rounds.
- (iv) At the end of the 10th round Ann and Ben have 29 points each whereas Cyn and Dan have 45 and 15 points respectively.
- (v) All of them had the same opinion in exactly 3 rounds namely the 1st, 5th and 10th rounds. Ann and Ben have the same opinion in the 7th and 8th rounds.
- (vi) From the 8th round to the 10th round the maximum increase was in Ben's score and it was 20 points.

Q.19 [11831809]

In how many rounds did three or more players disagree with the presented conclusion?

Correct Answer: 3

Answer key/Solution

Step 1:

From condition (i), Cyn has agreed to the conclusions in the first 3 rounds. This means that all of them agreed in the 1st round. Also, from the scores at the end of the 3rd round we can say that in one out of the 2nd and 3rd rounds Ben agreed with Cyn while the other two disagreed whereas in the remaining round other than Cyn all others disagreed.

From conditions (iv) and (vi), Let us look at the last two rounds (9th and 10th). We know that all of them gave the same opinion in the 10th round, also Ben's score increase by 20 points from the 8th to the 10th round, so he must have scored 10 points in both rounds. Hence, all of them agreed to the conclusion in the 10th round whereas only Ben agreed in the 9th round.

From conditions (iii) and (v), Next going in the reverse order, we get the scores for the 8th round. We already have the scores for the participants at the end of the 6th round. So we find out their opinions in the 7th and 8th rounds. Ann and Ben have gained 7 points whereas Cyn has gained 8 points; also Dan has lost 7 points.

Step 2:

With this situation, we get the following results for the two rounds: Ann and Ben disagree whereas Cyn and Dan agree thereby scoring (+2, +2, +3, +3). In the remaining round Dan disagrees whereas the others agree. Thereby scoring (+5, +5, +5, +5)

In the 5th round all of them have the same opinion. They all have to disagree; otherwise Ben's score will be a violation. So in the 5th round scores are (+2, +2, +2 +2).

From condition (ii), Ben's score has decreased by 6 form the 3rd to the 6th round, so in the remaining two rounds Ben must have -8 points, this means that -10 in one and +2 in the other. This clearly shows that in one round all except Ben agree to the conclusion thereby the scores are (+5, -10, +5, +5) whereas in the remaining round two agree and two disagree.

Step 3:

Cyn's score has increased by 9 so in the remaining round the scores will be (+3, +2, +2, +3). So, now we have the scores for all the rounds. This can be represented in a table as follows:

Round	Ann	Ben	Cyn	Dan
1	10	10	10	10
2/3	-5	-5	10	-5
3/2	2	3	3	2
Score at the end of 3rd round	7	8	23	7
4/6	5	-10	5	5
5	2	2	2	2
6/2	3	2	2	3
Score at the end of 6th round	17	2	32	17
7/8	2	2	3	3
8/7	5	5	5	-10
Score at the end of 8th round	24	9	40	10
9	-5	10	- 5	-5
10	10	10	10	10
Score at the end of 10th round	29	29	45	15

We can observe from the table that in three rounds (2nd or 3rd, 5th and 9th rounds) three or more participants disagree.

Bookmark

Directions for questions 17 to 20: Answer the questions on the basis of the information given below.

In a reality show for budding writers there are 10 rounds and four participants Ann, Ben, Cyn and Dan. In each round a situation along with the conclusion are posed and the four participants either agree or disagree (A or D) with the conclusion. They get points based on some conditions and the winner get a chance to be a script writer for their upcoming show.

The table below gives the points earned by the participants based on how many of them agree or disagree with the conclusion. For example: If 3 participants disagree, they get -5 points each and 1 participant who agrees gets +10 points.

Agree Disagree	0	1	2	3	4
0	×	×	×	×	+10 0
1	×	×	×	+5 -10	×
2	×	×	2 3	×	×
3	×	+10 -5	×	×	×
4	+2 0	×	×	×	×

Further, it is also known that:

- (i) At the end of the 3rd round Ann and Dan have 7 points each whereas Cyn has agreed to all three conclusions and scored 23 points.
- (ii) At the end of the 6th round Ann and Dan have increased their scores by 10 points since the 3rd round whereas the digits of Cyn's score have reversed and Ben has the lowest score with 2 points.
- (iii) Out of the 10 rounds, Ann and Dan have the same opinion (either agree or disagree) in 8 rounds.
- (iv) At the end of the 10th round Ann and Ben have 29 points each whereas Cyn and Dan have 45 and 15 points respectively.
- (v) All of them had the same opinion in exactly 3 rounds namely the 1st, 5th and 10th rounds. Ann and Ben have the same opinion in the 7th and 8th rounds.
- (vi) From the 8th round to the 10th round the maximum increase was in Ben's score and it was 20 points.

Q.20 [11831809] What was the absolute difference between Cyn's score and Ann's score at the end of the 8th round?	
1 🔾 16	
2 🔾 10	
3 🔾 12	
4 🔾 18	

Correct Answer: 1

& Answer key/Solution

Step 1:

From condition (i), Cyn has agreed to the conclusions in the first 3 rounds. This means that all of them agreed in the 1st round. Also, from the scores at the end of the 3rd round we can say that in one out of the 2nd and 3rd rounds Ben agreed with Cyn while the other two disagreed whereas in the remaining round other than Cyn all others disagreed.

From conditions (iv) and (vi), Let us look at the last two rounds (9th and 10th). We know that all of them gave the same opinion in the 10th round, also Ben's score increase by 20 points from the 8th to the 10th round, so he must have scored 10 points in both rounds. Hence, all of them agreed to the conclusion in the 10th round whereas only Ben agreed in the 9th round.

From conditions (iii) and (v), Next going in the reverse order, we get the scores for the 8th round. We already have the scores for the participants at the end of the 6th round. So we find out their opinions in the 7th and 8th rounds. Ann and Ben have gained 7 points whereas Cyn has gained 8 points; also Dan has lost 7 points.

Step 2:

With this situation, we get the following results for the two rounds: Ann and Ben disagree whereas Cyn and Dan agree thereby scoring (+2, +2, +3, +3). In the remaining round Dan disagrees whereas the others agree. Thereby scoring (+5, +5, +5, +5)

In the 5th round all of them have the same opinion. They all have to disagree; otherwise Ben's score will be a violation. So in the 5th round scores are (+2, +2, +2 +2).

From condition (ii), Ben's score has decreased by 6 form the 3rd to the 6th round, so in the remaining two rounds Ben must have -8 points, this means that -10 in one and +2 in the other. This clearly shows that in one round all except Ben agree to the conclusion thereby the scores are (+5, -10, +5, +5) whereas in the remaining round two agree and two disagree.

Step 3:

Cyn's score has increased by 9 so in the remaining round the scores will be (+3, +2, +2, +3). So, now we have the scores for all the rounds. This can be represented in a table as follows:

Round	Ann	Ben	Cyn	Dan
1	10	10	10	10
2/3	-5	-5	10	-5
3/2	2	3	3	2
Score at the end of 3rd round	7	8	23	7
4/6	5	-10	5	5
5	2	2	2	2
6/2	3	2	2	3
Score at the end of 6th round	17	2	32	17
7/8	2	2	3	3
8/7	5	5	5	-10
Score at the end of 8th round	24	9	40	10
9	-5	10	-5	-5
10	10	10	10	10
Score at the end of 10th round	29	29	45	15

Required absolute difference = 40 - 24 = 16.

Bookmark