LRDI CLASS

During a period of ten days, Day 1 through Day 10, on each day, it rained or snowed or was windy. On any day that it rained, it did not snow. On any day that it snowed, it was not windy. On any day that was windy, it did not rain. If it rained on any day, Jatin went to a movie on that day. If it snowed on any day, Jatin went to the mall on that day. If it was windy on any day, Jatin went to the gym on that day. Further, if Jatin went to a mall but did not go to a movie on any day, he also went to the gym on that day. If Jatin went to a movie on any day, he also went to the mall on that day. It is also known that, during the given period,

i. it did not snow on any two consecutive days.

ii. Jatin did not go to the mall on Day 8 and Day 10, while he went to a movie on Day 3.

iii. it rained on at least three days and it snowed on at least three days.

iv. on each of Day 2 and Day 5, Jatin went to the mall but did not go to a movie, while on each of Day 1 and Day 7 he went to the gym but did not go to the mall.

v. he went to both a movie and the gym on exactly four days.

Q1. On how many days that it snowed did Jatin go to a movie?

a) 0 b) 1 c) 2 d) 3

Q2. On how many days that were windy did Jatin go only to the gym?

Q3. On which of the following days did it not snow but Jatin went to the mall?

a) Day 4 b) Day 5 c) Day 9 d) None of the above

Q4. On how many days did he go to the gym?

Tetra is a company that manufactures and sells chairs. At the beginning of each month, the stock of chairs in the inventory is calculated. The stock at the beginning of any month is calculated as follows:

Stock at the beginning of a month
= Stock at the beginning of the previous month
+ Number of chairs manufactured during the previous month
– Number of chairs sold during the previous month

The table below provides the stock of chairs at the beginning of each month in 2017.

It is also known that, in any month, the number of chairs manufactured was either half the number of chairs sold or thrice the number of chairs sold. There was no stock left in the inventory at the end of the year.

Month	Stock (in '000)
January	100
February	130
March	80
April	130
May	150
June	90
July	75
August	60
September	100
October	50
November	90
December	30

Q1. In how many months during the year were more than 50000 chairs sold?
a) 4 b) 5 c) 6 d) Cannot be determined

Q2. In which month during the year were the highest number of chairs manufactured?
a) March b) April c) May d) August

Q3. What is the average number of chairs sold per month (approximately) during the year?
a) 53333 b) 53667 c) 54167 d) 57333

Q4. In which of the following months was the percentage increase in the number of chairs sold as compared to the previous month the highest?
a) November b) September c) July d) February

On a particular day, Aravind, a lecturer in a college, gave six lectures, each on a different subject among Classical Mechanics, Solid State Physics, Inorganic Chemistry, Zoology, Geology and Robotics.

Each lecture lasted for at least 45 minutes. The first lecture started at 10:00 AM and the last lecture ended at 6:00 PM. Between any two lectures that he gave, there was a break of exactly 15 minutes.

It is also known that

i. Aravind gave the Classical Mechanics lecture before he gave the Zoology lecture and he was giving the Robotics lecture at 11:17 AM.
ii. one of the lectures ended at 12:20 PM and another lecture started at 2:40 PM.
iii. the longest lecture was the Inorganic Chemistry lecture, which lasted for twice as long as the Geology lecture.
iv. only two lectures lasted for less than an hour and one of the two started before 12 noon, while the other was the lecture that ended at 6:00 PM.
v. the Solid State Physics lecture lasted for exactly 65 minutes and this started immediately after the Classical Mechanics lecture.

Q1. For how many minutes did the Robotics lecture last?

Q2. Which lecture was Aravind giving at 10:50 AM?
a) Inorganic Chemistry b) Classical Mechanics c) Geology d) Robotics

Q3. What is the duration (in minutes) of the shortest lecture that Aravind gave?

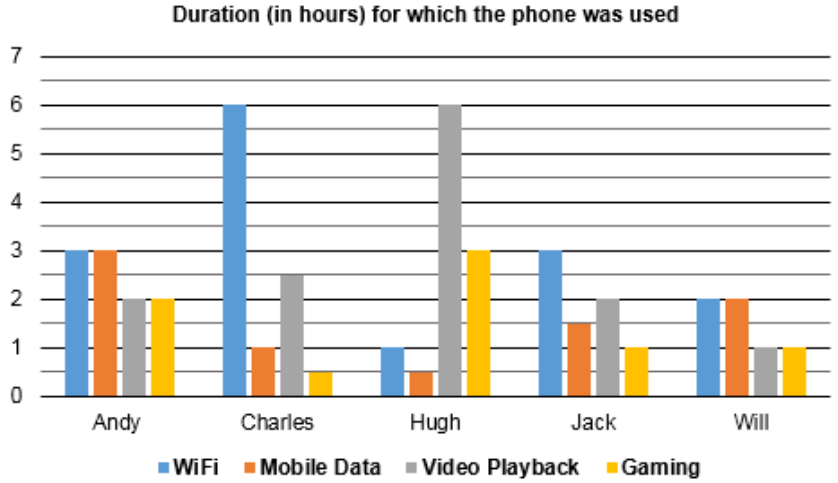
Q4. What is the duration (in minutes) of the fourth lecture that he gave?

Shyomi Inc. wanted to introduce a new smartphone, Me2, in India. The phone can be used for four different activities - Browsing using WiFi, Browsing using Mobile Data, Video Playback and Gaming. The battery of Me2 gets discharged uniformly over a certain duration depending on the activity for which the phone is used. A fully discharged battery of the phone takes exactly one hour to charge completely. The phone cannot be used for more than one activity at the same time and the battery will not get discharged in any other way. The following table provides the number of hours that the fully charged battery of the phone will last when the phone is used for different activities:

Activity	Time (hours)
Browsing using WiFi	6
Browsing using Mobile Data	3
Video Playback	4
Gaming	2

On a particular day, at exactly 8:00 AM, Shyomi gave a fully charged Me2 phone to each of five tech reviewers – Andy, Charles, Hugh, Jack and Will. Each reviewer used the phone for a certain period of time over the day. Also, each reviewer charged the phone every time the battery of the phone got completely discharged, irrespective of whether or not he used the phone again. None of them used the phone when it was being charged and they waited until the phone was completely charged before using it again. After using the phone, each reviewer returned the phone back to the company. When the phone was with the reviewers, the phone was never idle, i.e., the phone was either being used by the reviewers or being charged.

The bar graph below provides the duration for which each reviewer used Me2 for each activity during the day.



Q1. Who among the following would have charged his phone for the maximum number of times during the given period?
a) Jack b) Charles c) Hugh d) Will

Q2. When will Andy start charging his phone for the third time?
a) 8:00 PM b) 6:00 PM c) 4:00 PM d) Cannot be determined

Q3. What will be the percentage of charge remaining in Charles' phone when he returned the phone?
a) 65.42% b) 79.17% c) 68.45% d) 74.51%

Q4. At which of the following times will Jack's phone definitely not be charging?
I. 10:20 AM II. 10:50 AM III. 11:45 AM IV. 1:25 PM
V. 2:35 PM VI. 3:10 PM
a) I, II and VI b) II, IV and V c) I, V and VI d) II, III and IV

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Gaming	2