SET-1

Polyglot Language Academy is a foreign language training academy based in Mumbai. All the students of this academy study at least of one of the following four languages – French, German, Swedish and Norwegian. In all, 120 members study French and the number of students studying only French, only German, only Swedish and only Norwegian are 23, 14, 21 and 18 respectively. The number of students studying French, German and Swedish is 20. The number of students studying German, Swedish and Norwegian is 26. The number of students studying French, German and Norwegian is 24. The number of students studying French, Swedish and Norwegian is 27. The number of students studying French and German is 50 and the number of students studying Swedish and Norwegian is 55. The numbers of students who study exactly two languages are all equal except for those who study only French and German and only Swedish and Norwegian.

Q1. What can be the maximum number of students who study only French and Norwegian (but no other language)?

1) 20 2) 22
3) 24 4) Cannot be determined

Q2. What can be the maximum number of students who study only Norwegian and Swedish (but no other language)?

1) 20 2) 22
3) 24 4) Cannot be determined

ELITES GRID

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Q3. If in all 14 students study only German and Norwegian (but no other language), how many students study French, Swedish and Norwegian but not German?

Q4. What is the maximum possible number of total students in the academy.

ELITES GRID

SET-2

-100 persons attended the party out of which 60 like tea, 70 like coffee and 80 like cold drinks.

a) Find the minimum and maximum number of person who like all three drinks.

b) Find the minimum and maximum number of person who like none of the three drinks.

c) Find the minimum and maximum number of person who like exactly two drinks.

d) Find the minimum and maximum number of people who like exactly one drink.

e) Find the minimum and maximum number of person who likes at least one drink

ELITES GRID

SET-3

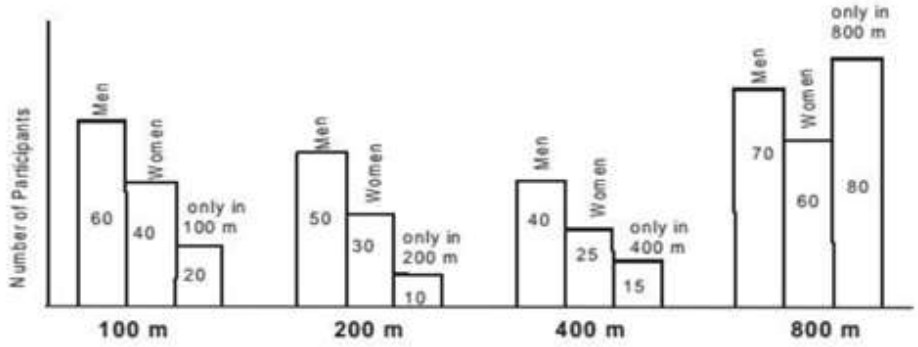
In a class of 120 students, the following information is known:
1)95% of the students like at least one fruit among Apple, Mango and Orange.
2) The number of students who like Mango is equal to the number of students who like Orange
3) 20% of the students who like Apple like the other two fruits as well.
4) 66.66% of the students who like exactly two fruits like Mango.
5) 40% of the students who like Apple like exactly one more fruit.
6) The number of students who like Mango is 10 more than the number of students who like Apple.
7) The number of students who like at least two fruits is equal to the sum of the number of students who like only Apple and the number of students who like only Mango.

Q1. What percentage of students who like Mango like Exactly One more fruit ?

ELITES GRID

SET-4

Some athletes participate in the Kommon Bealth Games 2010 in which there are only four events - 100 m, 200 m, 400 m and 800 m race. The graph given below shows the number of men/women who participate in an event and the number of athletes who participate only in that event.



What can be the minimum number of men who participate in the Kommon Bealth Games 2010?

(a) 70 (b) 90 (c) 80 (d) None of these

What can be the maximum number of women who participate in exactly three events of Kommon Bealth Games 2010?

(a) 45 (b) 47 (c) 48 (d) 40

ELITES GRID

SET-5

In a group of 100 students, each student has to opt for one or more of the 3 subjects among Physics, Chem and Maths. The number of students opting for maths is more than that of physics which in turn is more than that of chem, which in turn, is more than the no of students opting for exactly 2 of the 3 subjects, which in turn, is more than the no of students opting for all the 3 subjects. It is also said that at least one student opted for all the 3 subjects.

Question1- Max no of students opting for chemistry

a) 72 b)79 c)80 d)81

Question2- Min no of students opting for maths ?

a) 38 b)37 c)36 d) 35

Question3- Maximum number of students who opted for only physics

a) 33 b)50 c) 49 d)46 e)52

Question4- Maximum number of students who opted for physics & chem but not maths

a) 47 b)48 c)49 d)50 e)32

ELITES GRID

SET-6

In a society, the newspapers of only three languages – Marathi, Gujarati and Hindi – are distributed. Each family residing in the society reads newspapers of at least one of the three languages.
The total number of families reading newspapers of exactly one language can be divided into three types - only Marathi, only Gujarati and only Hindi. These three numbers are in A.P., in no particular order. Similarly the three types of families reading newspapers of exactly two languages are also in A.P. The number of families reading newspapers of all the three languages is one-tenth of the number of families reading only Gujarati newspapers, which in turn is two-third of the number of families reading only Hindi newspapers. The number of families reading both Marathi and Gujarati newspapers is 15, whereas the number of families reading both Gujarati and Hindi newspapers is 19. The number of families reading Hindi newspapers is 70, which is more than the number of families reading Marathi newspapers.

What is the total number of families in the society?
(a) 111 (b) 113 (c) 128 (d) Cannot be determined

What is the number of families reading both Marathi and Hindi newspapers?
(a) 11 (b) 21 (c) 23 (d) Cannot be determined

ELITES GRID

SET-7

In a class of 96 students, each student opts for at least one of the three subjects – Physics, Chemistry and Mathematics. It is also known that:

(i) The number of students who opt for Physics only is equal to the number of students who opt for Mathematics only and is also equal to twice the number of students who opt for both Mathematics and Physics but not Chemistry.
(ii) The number of students who opt for exactly two subjects is 25.
(iii) The number of students who opt for Chemistry is 31.
(iv) Among those who opt for Chemistry, 13 students opt for at least two subjects.

If the number of students who opt for Mathematics is the maximum among the three subjects, then what is the maximum possible number of students who opt for both Physics and Chemistry but not Mathematics?

(a) 5 (b) 6 (c) 7 (d) Cannot be determined

Which additional piece of information is required to find the exact number of students who opt for both Chemistry and Mathematics but not Physics?

(a) The number of students who opt for exactly one of the three subjects is 70.
(b) Only one student opts for all the three subjects.
(c) The number of students who opt for Mathematics is 50.
(d) The number of students who opt for Mathematics only is 26.

ELITES GRID

SET-8

Brain tree school has organized a festival where 4 stalls - Selfie stall, Puppet stall, Snack stall & Tattoo stall has been displayed by teacher for students. Each student who has attended the festival has gone to at least one of the four stalls. Also following observations are made:

	No. of students of age more than 6 years who went to the stall	No. of students of age more than 3 years but not more than 6 years who went to the stall	No. of students of Age not more than 3 years who went To the stall	No. of people Who went to only That stall
Selfie Stall	50	110	90	100
Puppet Stall	30	60	110	40
Snack Stall	40	50	60	30
Tattoo Stall	30	70	70	20

Q1- What is the minimum possible number of students who have attended the festival?

A) 350 B) 370 C) 300 D) 190

Q2- The number of students who went to all the 4 stalls is at most

A) 125 B) 130 C) 120 D) 140

Q3- The number of students of age not more than 6 years, who attended the festival, is at least:

A) 150 B) 170 C) 210 D) 140

Q4- The number of students who went to exactly two of the four stalls is at the most

A) 280 B) 340 C) 300 D) 290