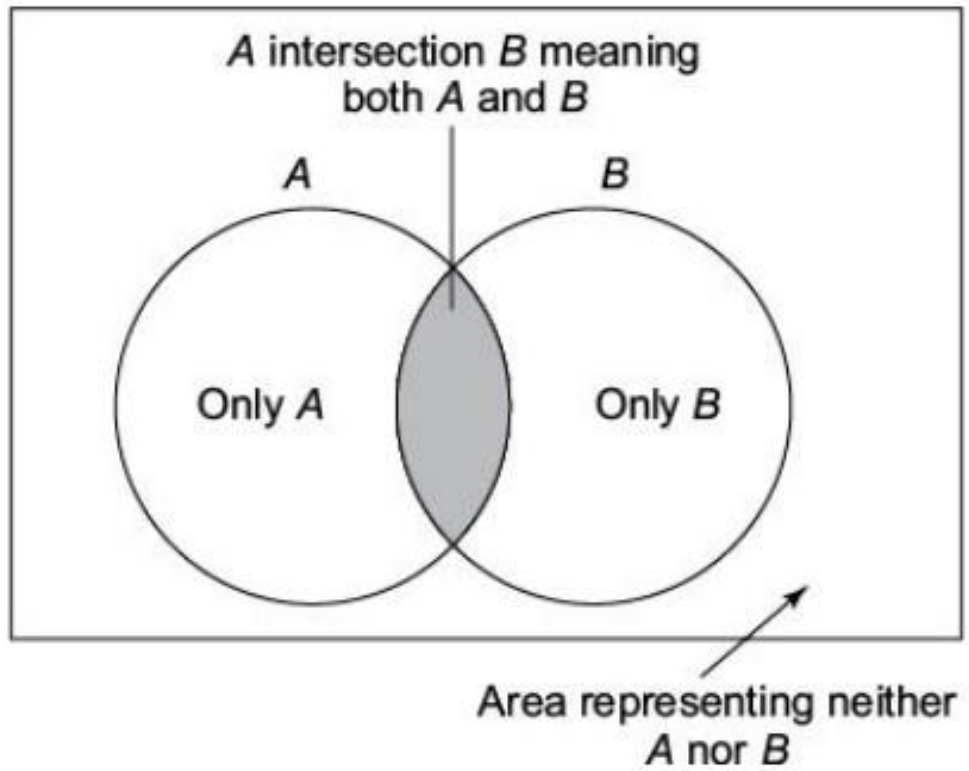


SET Theory : Venn Diagram



Total number of people who passed at least 1 subject
 $= A + B - (A \cap B)$

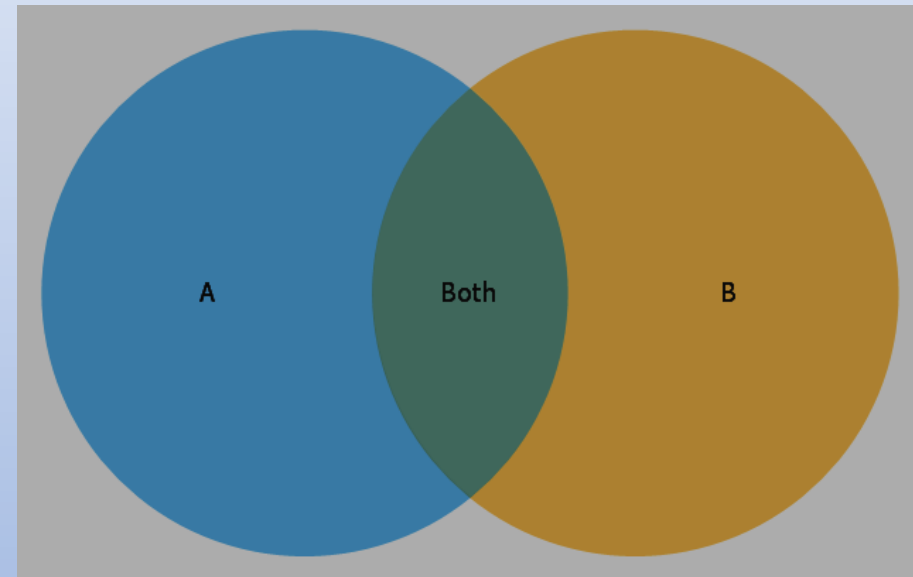
Q.1 At the birthday party of Sherry, a baby boy, 40 persons choose to kiss him and 25 choose to shake hands with him, 10 persons choose to both kiss him and shake hands with him. How many persons turned out at the party?

a)35

b)75

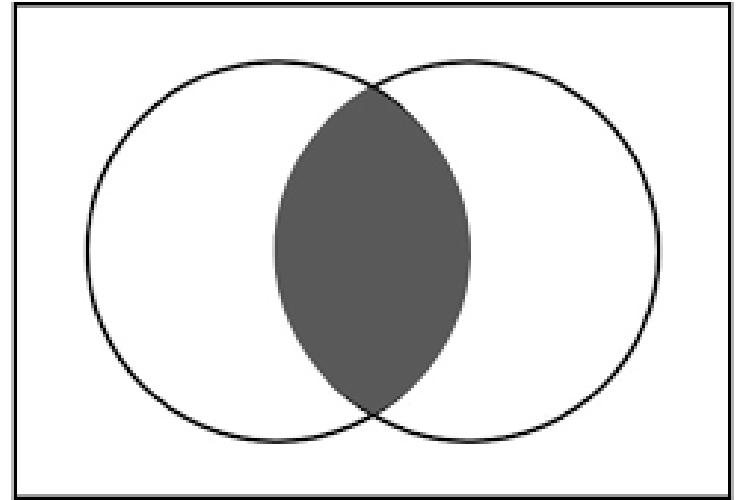
c)55

d)25



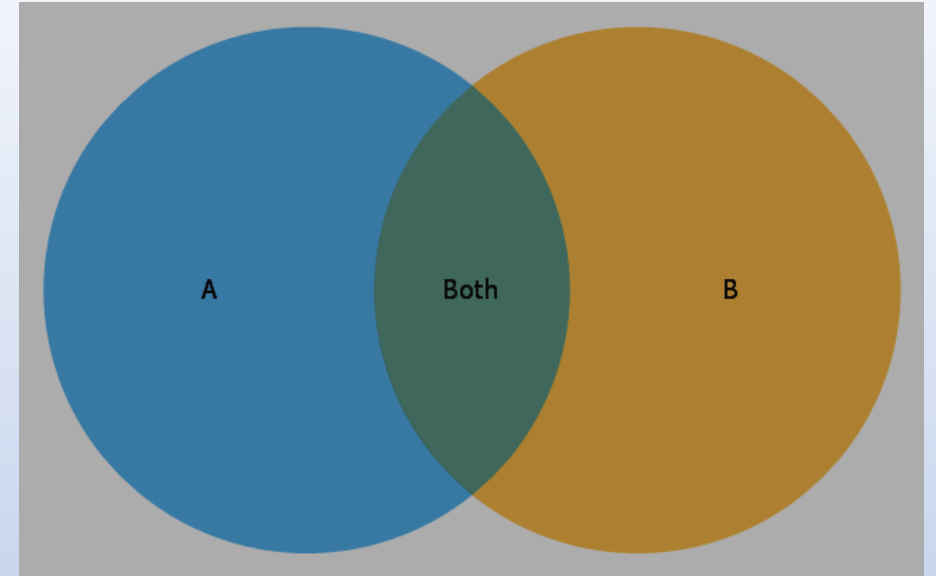
Q 2. 30 monkeys went to a picnic. 25 monkeys chose to irritate cows while 20 chose to irritate buffaloes. How many chose to irritate both buffaloes and cows?

15



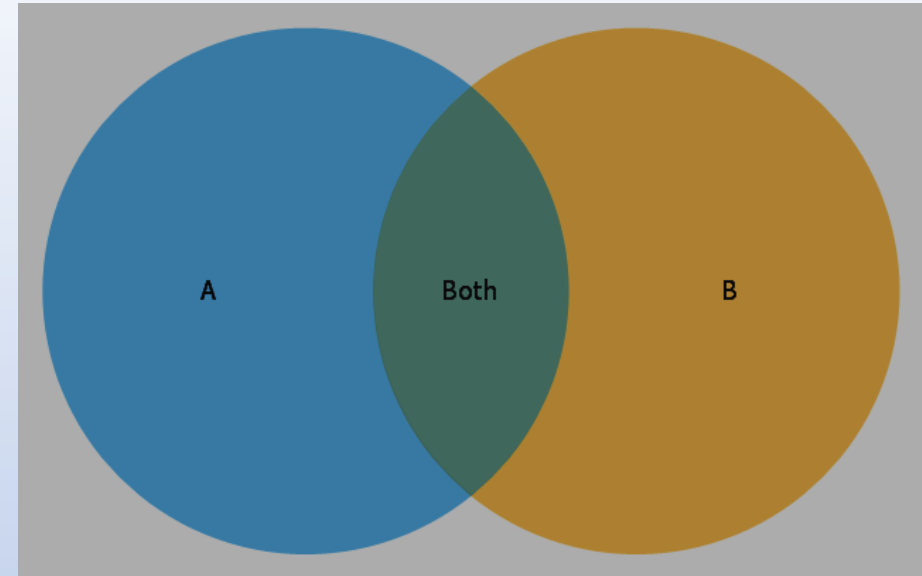
Q.3. In the Mindworkzzz club all the members participate either in the Tambola or the Fete. 320 participate in the Fete, 350 participate in the Tambola and 220 participate in both. How many members does the club have?

450

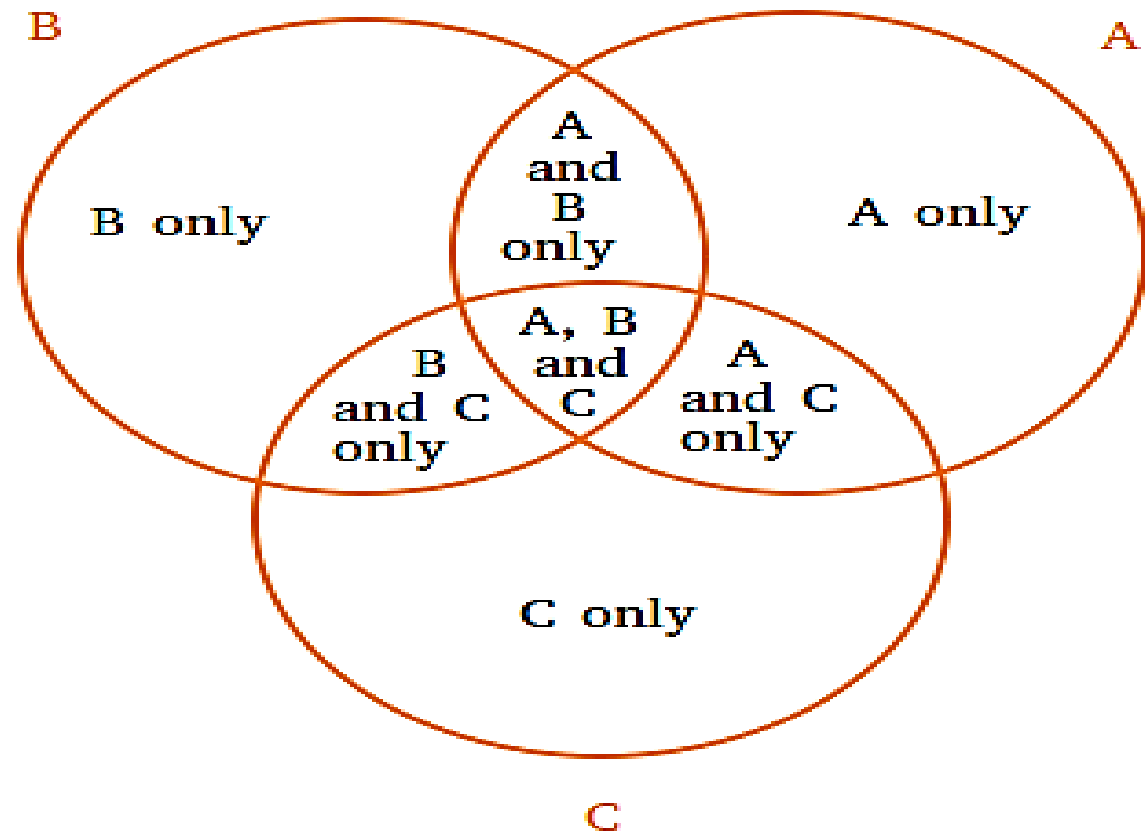


Q.4 There are 20000 people living in Defence Colony, Gurgaon. Out of them 9000 subscribe to Star TV Network and 12000 to Zee TV Network. If 4000 subscribe to both, how many do not subscribe to any of the two?

3000



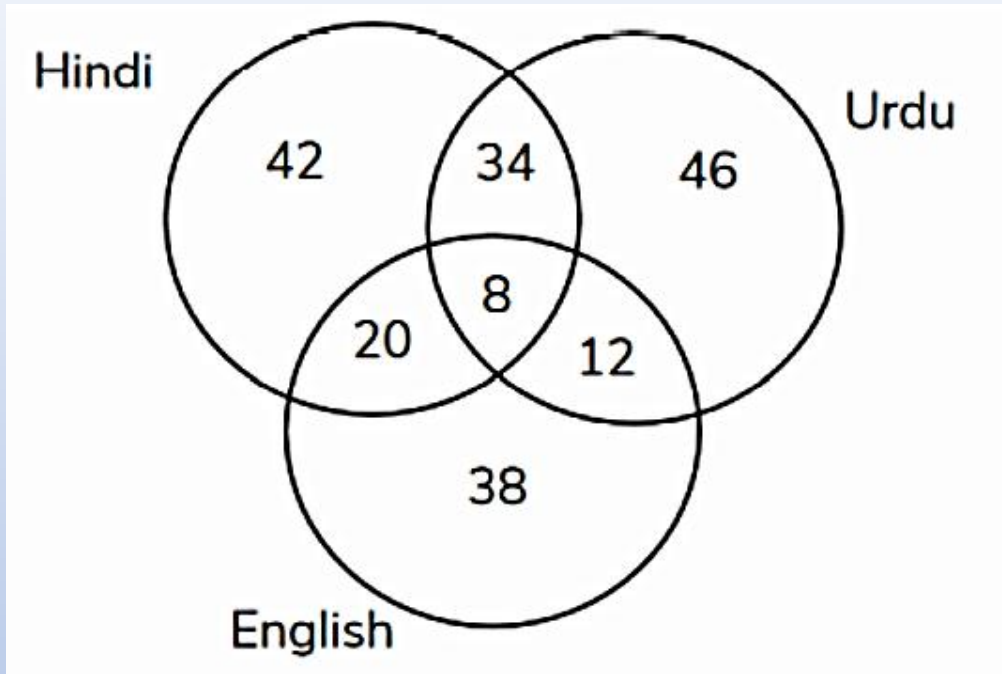
3-circle Venn diagram



SET :

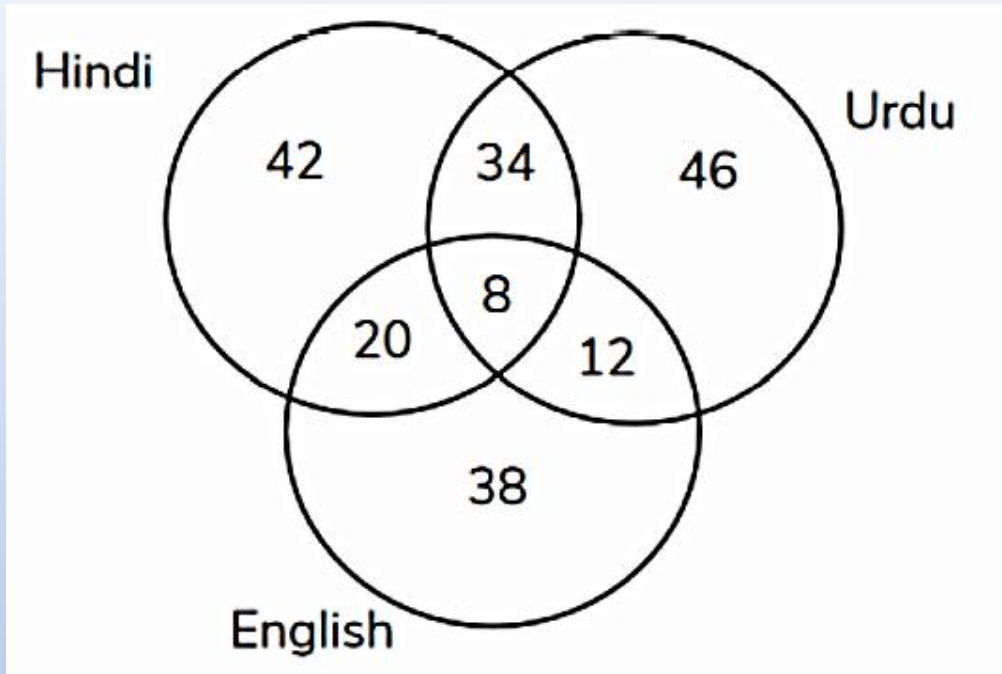
Q.5 The teachers' colony has 2800 members, out of which 650 members read only English newspaper. 550 members read only Hindi newspaper and 450 members read only Marathi newspaper. The number of members reading all the 3 newspapers is 100. Members reading Hindi as well as English newspaper are 200. 400 members read Hindi as well as Marathi newspaper and 300 members read English as well as Marathi newspaper. Find the number of members reading Hindi newspaper.

- A. 750
- B. 980
- C. 1020
- D. 1050**
- E. 1060



Q.6 The number in the Venn diagram indicates the number of persons who can speak various languages in a city. The diagram is drawn after surveying 200 persons. In a population of 15,000. How many people can be expected to speak just one language? **TCS NQT**

- A. 8400 **B. 9450** C. 9600 D. 8740



Q.7 The number in the Venn diagram indicates the number of persons who can speak various languages in a city. The diagram is drawn after surveying 200 persons. In a population of 15,000. How many people can be expected to speak at least two languages?

TCS NQT

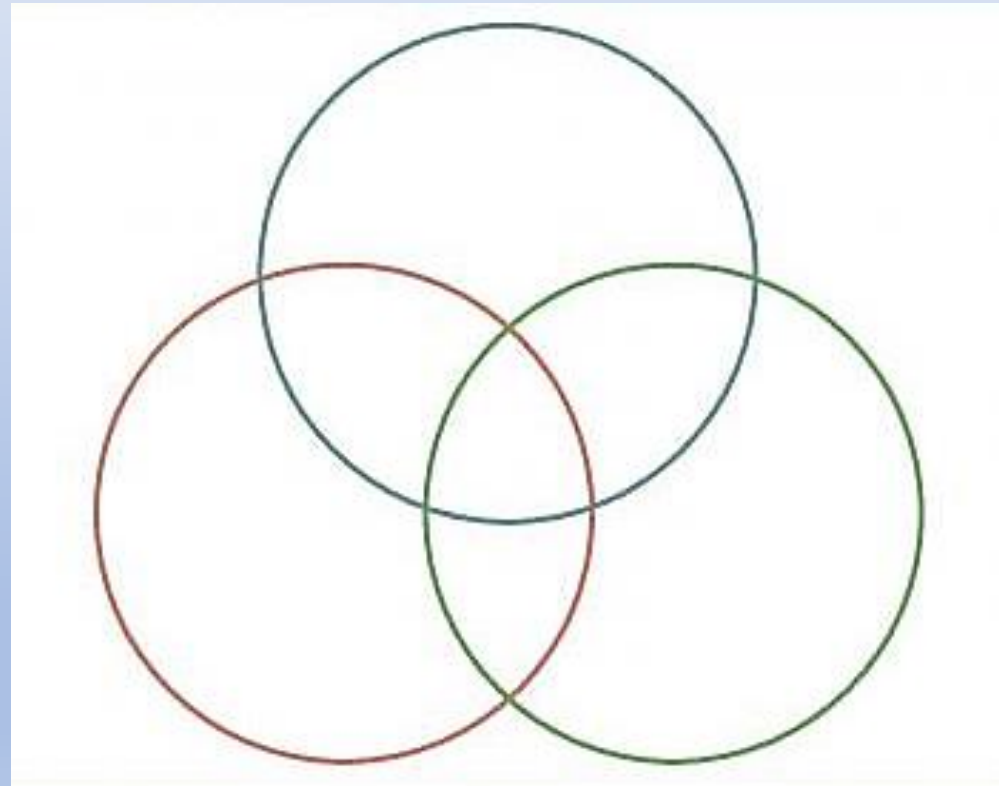
A. 2400 B. 2900 C. 5200 D. 4950

5550

SET :

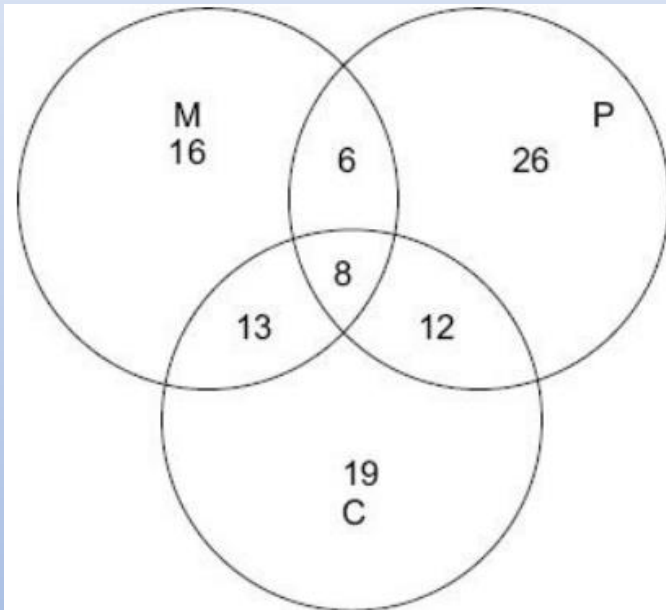
Q.8 In an examination 43% passed in Math, 52% passed in Physics and 52% passed in Chemistry. Only 8% students passed in all the three. 14% passed in Math and Physics and 21% passed in Math and Chemistry and 20% passed in Physics and Chemistry. Number of students who took the exam is 200. Then How many students passed in Math only?

32



Q.9 In an examination 43% passed in Math, 52% passed in Physics and 52% passed in Chemistry. Only 8% students passed in all the three. 14% passed in Math and Physics and 21% passed in Math and Chemistry and 20% passed in Physics and Chemistry. Number of students who took the exam is 200. Find the ratio of students passing in Math only to the students passing in Chemistry only?

16/19



Q.10 In an examination 43% passed in Math, 52% passed in Physics and 52% passed in Chemistry. Only 8% students passed in all the three. 14% passed in Math and Physics and 21% passed in Math and Chemistry and 20% passed in Physics and Chemistry. Number of students who took the exam is 200. A student is declared pass in the exam only if he/she clears at least two subjects. The number of students who were declared passed in this exam is?

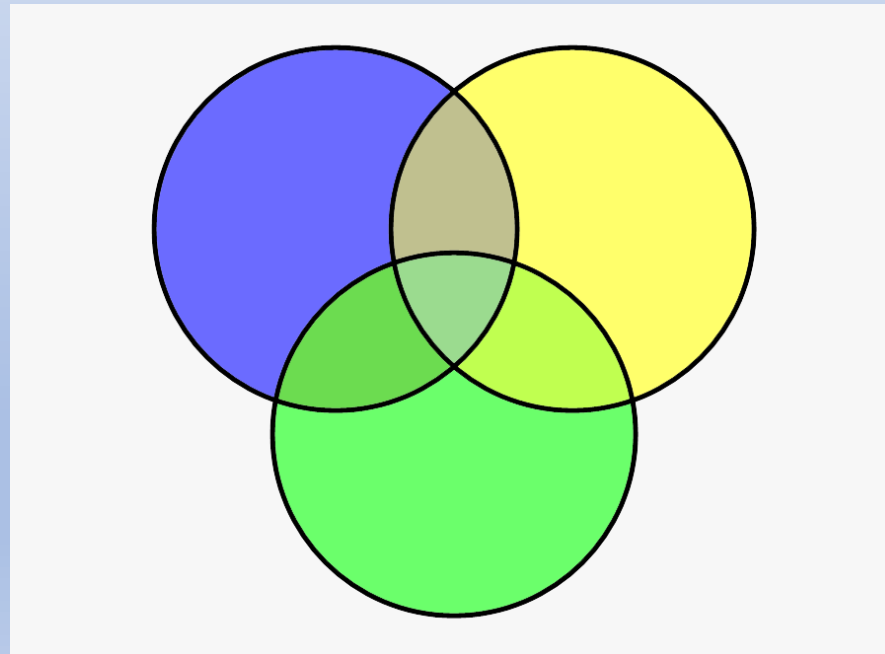
78

Q.11 In an examination 43% passed in Math, 52% passed in Physics and 52% passed in Chemistry. Only 8% students passed in all the three. 14% passed in Math and Physics and 21% passed in Math and Chemistry and 20% passed in Physics and Chemistry. Number of students who took the exam is 200. What is the ratio of the number of students passing in Physics only to the students passing in either Physics or Chemistry or both?

26/84

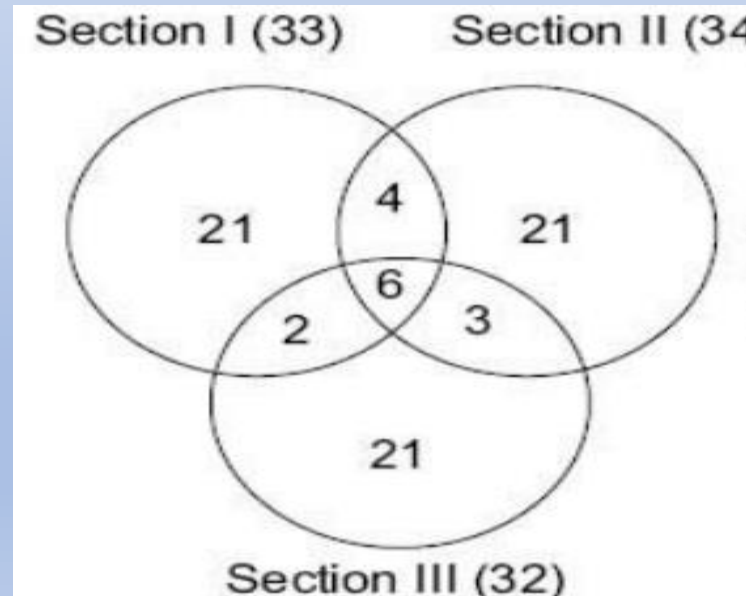
Q.12 Last year, there were 3 sections in the Catalyst, a mock CAT paper. Out of them 33 students cleared the cut-off in Section 1, 34 students cleared the cut-off in Section 2 and 32 cleared the cut-off in Section 3. 10 students cleared the cut-off in Section 1 and Section 2, 9 cleared the cut-off in Section 2 and Section 3, 8 cleared the cut-off in Section 1 and Section 3. The number of people who cleared each section alone was equal and was 21 for each section. How many cleared all the three sections?

6



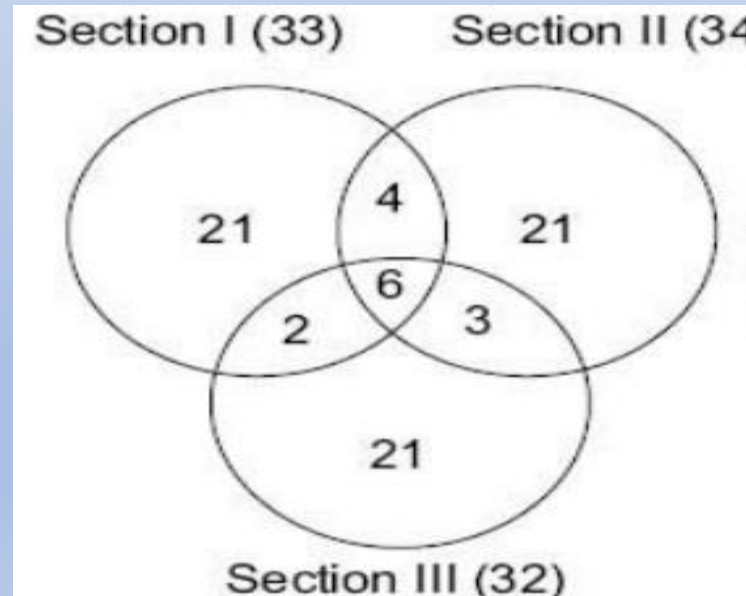
Q.13 Last year, there were 3 sections in the Catalyst, a mock CAT paper. Out of them 33 students cleared the cut-off in Section 1, 34 students cleared the cut-off in Section 2 and 32 cleared the cut-off in Section 3. 10 students cleared the cut-off in Section 1 and Section 2, 9 cleared the cut-off in Section 2 and Section 3, 8 cleared the cut-off in Section 1 and Section 3. The number of people who cleared each section alone was equal and was 21 for each section. How many cleared only one of the three sections?

63



Q.14 Last year, there were 3 sections in the Catalyst, a mock CAT paper. Out of them 33 students cleared the cut-off in Section 1, 34 students cleared the cut-off in Section 2 and 32 cleared the cut-off in Section 3. 10 students cleared the cut-off in Section 1 and Section 2, 9 cleared the cut-off in Section 2 and Section 3, 8 cleared the cut-off in Section 1 and Section 3. The number of people who cleared each section alone was equal and was 21 for each section. The ratio of the number of students clearing the cut-off in one or more of the sections to the number of students clearing the cutoff in Section 1 alone is?

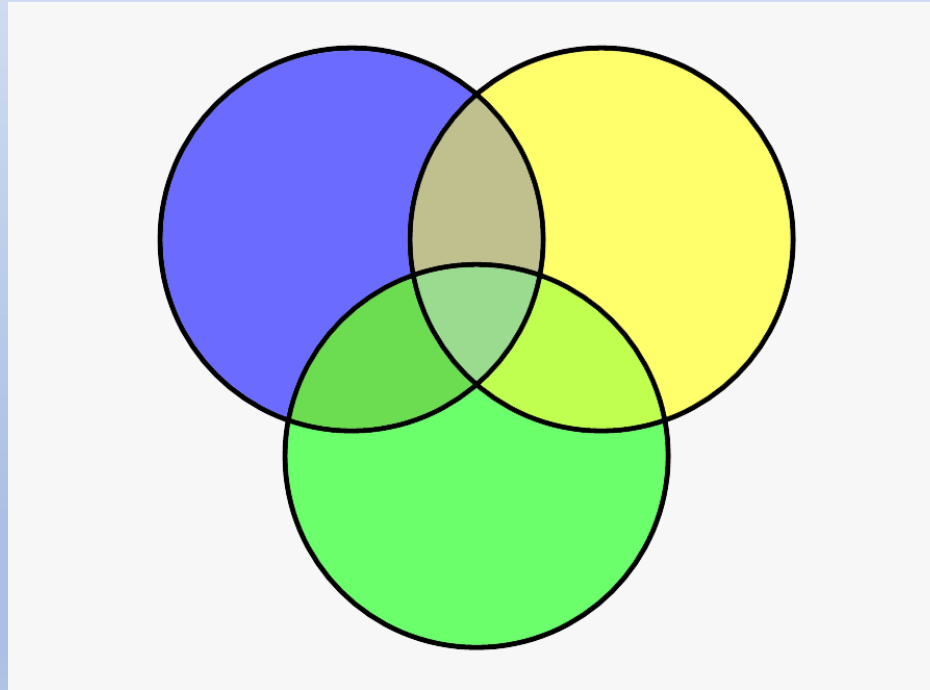
78/21



SET

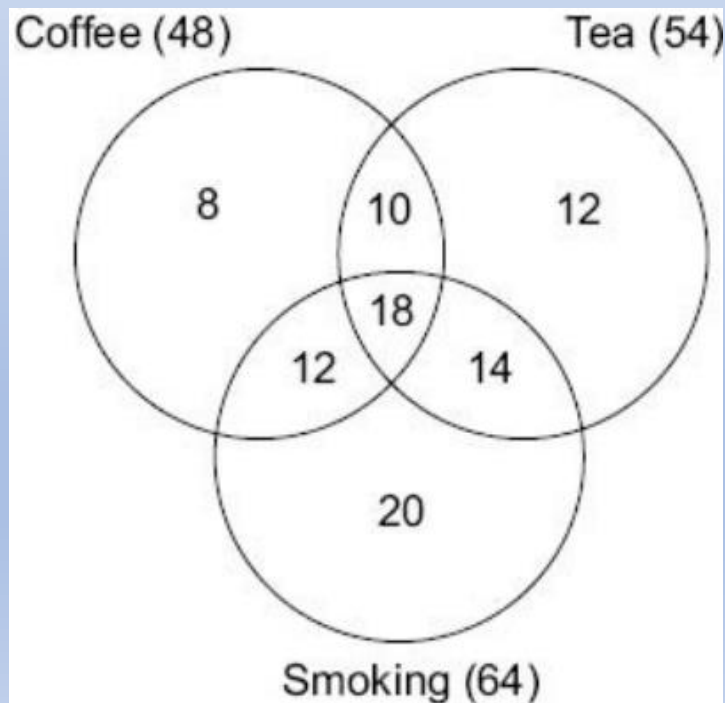
Q. 15 In a survey among students at all the IIMs, it was found that 48% preferred coffee, 54% liked tea and 64% smoked. Of the total, 28% liked coffee and tea, 32% smoked and drank tea and 30% smoked and drank coffee. Only 6% did none of these. If the total number of students is 2000 then find The ratio of the number of students who like only coffee to the number who like only tea is

2/3



Q.16 In a survey among students at all the IIMs, it was found that 48% preferred coffee, 54% liked tea and 64% smoked. Of the total, 28% liked coffee and tea, 32% smoked and drank tea and 30% smoked and drank coffee. Only 6% did none of these. If the total number of students is 2000 then find Number of students who like coffee and smoking but not tea is

240



Q17 . In a survey among students at all the IIMs, it was found that 48% preferred coffee, 54% liked tea and 64% smoked. Of the total, 28% liked coffee and tea, 32% smoked and drank tea and 30% smoked and drank coffee. Only 6% did none of these. If the total number of students is 2000 then find The percentage of those who like at least one of these is

94%

Q.18 In a survey among students at all the IIMs, it was found that 48% preferred coffee, 54% liked tea and 64% smoked. Of the total, 28% liked coffee and tea, 32% smoked and drank tea and 30% smoked and drank coffee. Only 6% did none of these. If the total number of students is 2000 then find The two items having the ratio 1:2 are

C option

- ☐ Tea only and tea and smoking only
- ☐ Coffee and smoking only and tea only
- ☐ Coffee and tea but not smoking and smoking but not coffee and tea.
- ☐ none

Q.19 In a survey among students at all the IIMs, it was found that 48% preferred coffee, 54% liked tea and 64% smoked. Of the total, 28% liked coffee and tea, 32% smoked and drank tea and 30% smoked and drank coffee. Only 6% did none of these. If the total number of students is 2000 then find The number of persons who like coffee and smoking only and the number who like tea only bear a ratio

1/1

Q.20 In a survey among students at all the IIMs, it was found that 48% preferred coffee, 54% liked tea and 64% smoked. Of the total, 28% liked coffee and tea, 32% smoked and drank tea and 30% smoked and drank coffee. Only 6% did none of these. If the total number of students is 2000 then find Percentage of those who like tea and smoking but not coffee is

14%

SET H.W

In the Indian athletic squad sent to the Olympics, 21 athletes were in the triathlon team; 26 were in the pentathlon team; and 29 were in the marathon team. 14 athletes can take part in triathlon and pentathlon; 12 can take part in marathon and triathlon; 15 can take part in pentathlon and marathon; and 8 can take part in all the three games. 1. How many players are there in all?

In the Indian athletic squad sent to the Olympics, 21 athletes were in the triathlon team; 26 were in the pentathlon team; and 29 were in the marathon team. 14 athletes can take part in triathlon and pentathlon; 12 can take part in marathon and triathlon; 15 can take part in pentathlon and marathon; and 8 can take part in all the three games. How many were in the marathon team only?

SET :

In a boys school the boys play 3 sports cricket , football and basketball. There are 1200 boys in all out of which 60% Play Cricket, 50 % play Football and 45% play basketball. 55 % of total boys play at least 2 sports. 18 % Play Cricket and Football both. 20 % Play Football and Basketball both. And 23 % play cricket and basketball.

SET

SET

5% of the passengers who boarded Guwahati- New Delhi Rajdhani Express on 20 th February, 2002 do not like coffee, tea and ice cream and 10% like all the three. 20% like coffee and tea, 25% like ice cream and coffee and 25% like ice cream and tea. 55% like coffee, 50% like tea and 50 % like ice cream. The number of passengers who like only coffee is greater than the passengers who like only ice cream by

5% of the passengers who boarded Guwahati- New Delhi Rajdhani Express on 20 th February, 2002 do not like coffee, tea and ice cream and 10% like all the three. 20% like coffee and tea, 25% like ice cream and coffee and 25% like ice cream and tea. 55% like coffee, 50% like tea and 50 % like ice cream. The percentage of passengers who like both tea and ice cream but not coffee is

5% of the passengers who boarded Guwahati- New Delhi Rajdhani Express on 20 th February, 2002 do not like coffee, tea and ice cream and 10% like all the three. 20% like coffee and tea, 25% like ice cream and coffee and 25% like ice cream and tea. 55% like coffee, 50% like tea and 50 % like ice cream. The percentage of passengers who like at least 2 of the 3 products is

5% of the passengers who boarded Guwahati- New Delhi Rajdhani Express on 20 th February, 2002 do not like coffee, tea and ice cream and 10% like all the three. 20% like coffee and tea, 25% like ice cream and coffee and 25% like ice cream and tea. 55% like coffee, 50% like tea and 50 % like ice cream. If the number of passengers is 180, then the number of passengers who like ice cream only is