



Venn Diagrams

Name: _____

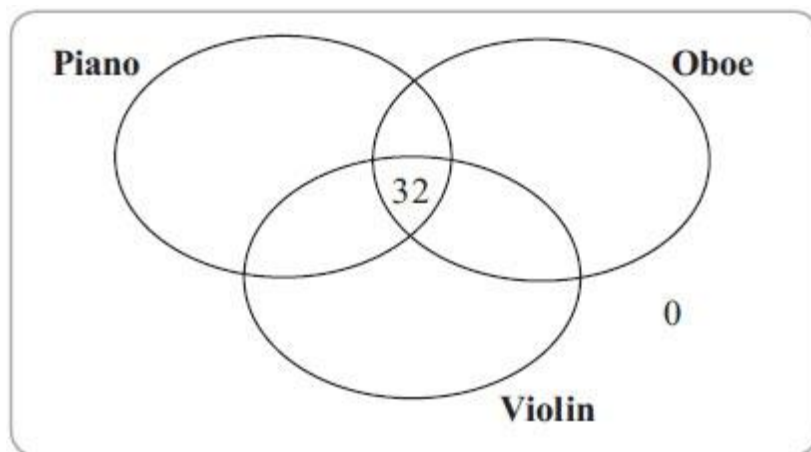
Total Marks: _____

Q.	Max	Actual	RAG
1	6		
2	8		
3	1		
4	4		
5			
6			
7			

Q1. There are 100 students at a music school.

- 12 of the students play the piano and violin only.
- 7 of the students play the violin and oboe only.
- 30 of the students play the piano and oboe only.
- 84 of the students in total play the piano.
- 57 of the students in total play the violin.

(a) Complete the Venn diagram using this information.



(3)

One of the 100 students is picked at random.

(b) Write down the probability that this student plays the piano and the oboe.

(1)

Given that the student plays the piano,

(c) find the probability that this student also plays the violin.

(2)

(Total for Question is 6 marks)

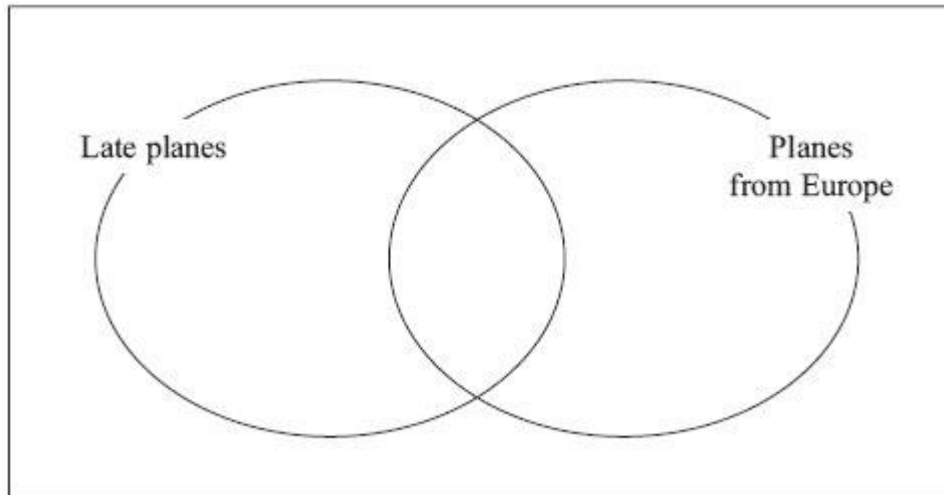
Q2. 100 planes landed at Heathrow Airport in a 3 hour period.

40 of the planes were from Europe.

20 of the planes were late, including 5 planes from Europe.

Data source: adapted from www.FlightStats.com

(a) Complete the Venn diagram using the information above.



(3)

One of these planes is chosen at random.

(b) Find the probability that

(i) the plane was **not** from Europe.

(ii) the plane was on time and was from Europe.

(3)

Given that the plane was late,

(c) find the probability that the plane was from Europe.

(2)

(Total for Question is 8 marks)

Q3. Given that $P(A) = 0.9$ find: $P(A')$

(Total for Question is 1 marks)

Q4. Lisa asked 60 people which sports they liked from swimming, football and cricket.

8 people like all three sports.

17 people like swimming and football.

13 people like football and cricket.

19 people like swimming and cricket.

35 people like football.

27 people like cricket

30 people like swimming.

Draw a Venn diagram to represent this information

..... (4)