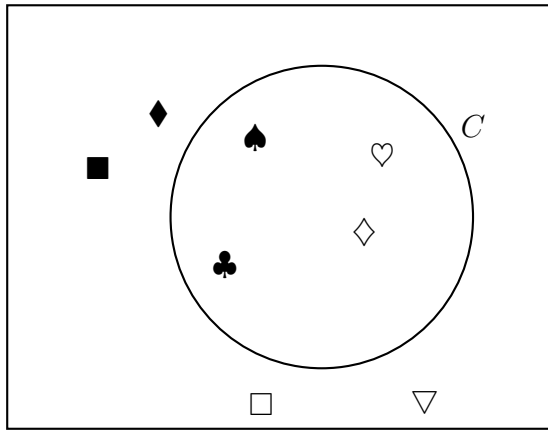


1. The teacher says: "In this Venn diagram, C is the set playing card suits"



ξ

The teacher writes:

$$C = \{\text{playing card suits}\}$$

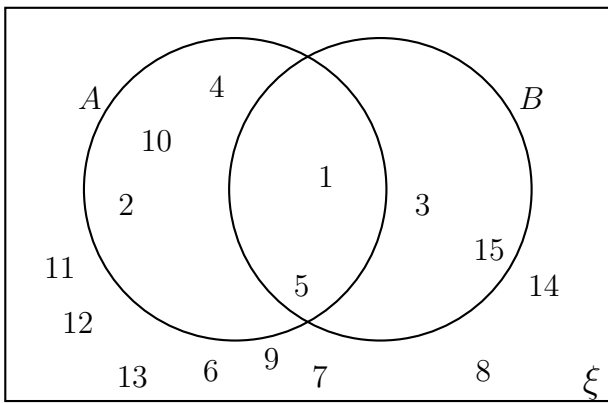
(i) Tick the correct statement

$$\Delta \in C \text{ "}\Delta \text{ is a member of C"}$$

$$\Delta \in C' \text{ "}\Delta \text{ is a member of not C"}$$

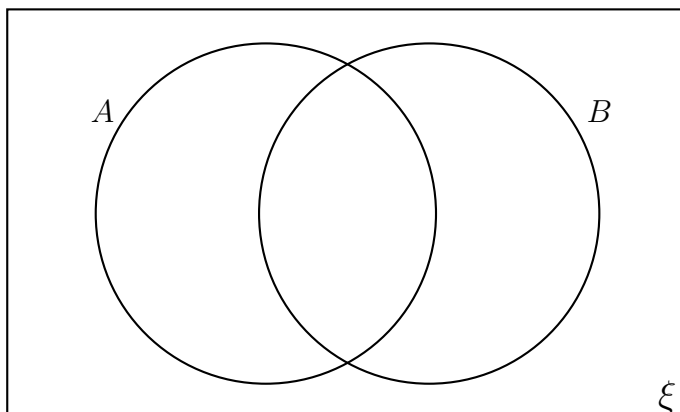
(ii) Add Δ to the Venn diagram

Here is a Venn diagram



ξ

2. Write down the numbers that are in the set B
3. Write down the numbers that are in the set B'
4. Write down the numbers that are in the set $A \cap B$
5. Layer **not** written yet
6. Layer **not** written yet
7. $\xi = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$
 $A = \{1, 2, 3, 4, 6\}$
 $B = \{2, 3, 5, 7\}$
 Complete this Venn diagram for this information.



ξ

- 8. Layer **not** written yet
- 9. Layer **not** written yet
- 10. A coach trip of prize winners visits a theme park.
 G is the set of prize winners that went on the Galatica ride.
 N is the set of prize winners that went on the Nemesis ride.
 The Venn diagram shows the number of winners in each set.
 A prize winner from the coach trip is selected at random.

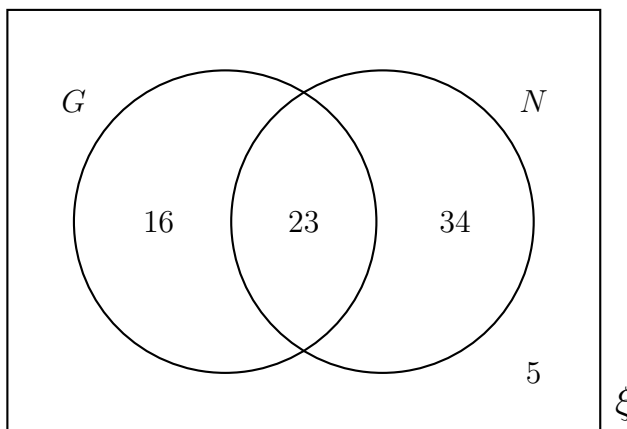
Write down

(i) $P(G \cup N)$

.....

(ii) $P(G \cap N)$

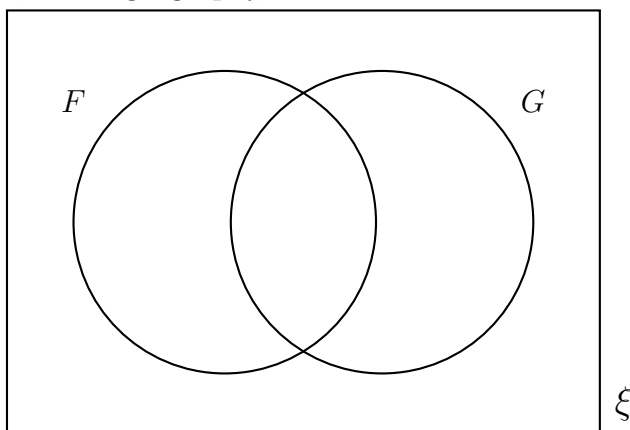
.....



- 11. Ms Hart asked the 150 year 9 students in her year group what options they plan to take
 She finds out that

- 45 year 9 students plan to take French
- 35 year 9 students plan to take geography
- 11 year 9 students plan to take both French and geography

- (a) Complete this Venn diagram to show the numbers of students planning to take French, F and geography, G.



- (b) How many students in Ms Hart's plan to take neither french nor geography.

(b)

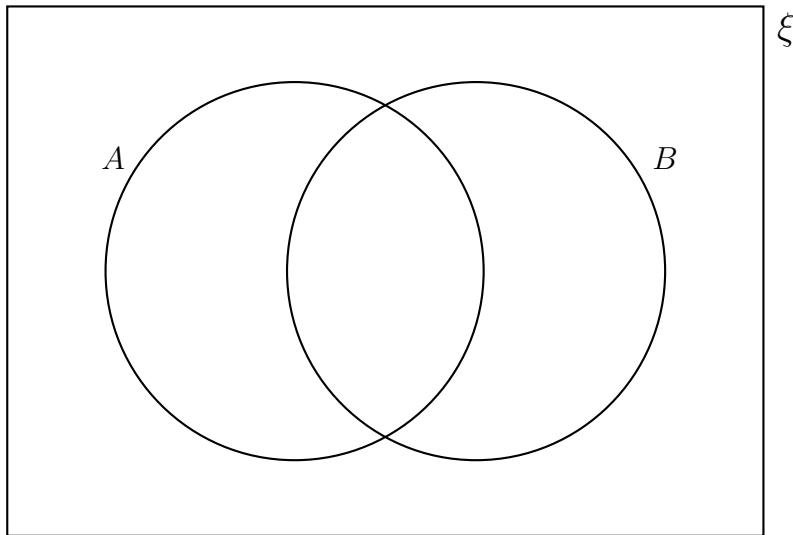
12. $\xi = \{\text{add, boot, egg, daughter, jam, milk, naan, nan, pear}\}$

$$A \cap B = \{\text{add, egg}\}$$

$$A \cup B = \{\text{add, egg, boot, jam, nan, naan}\}$$

$$B = \{\text{add, egg, jam, nan}\}$$

Complete this Venn diagram for this information.



13. $\xi = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$

$$A = \{\text{prime numbers}\}$$

$$B = \{\text{factors of 9}\}$$

Complete this Venn diagram for this information.

