

Complement of a set

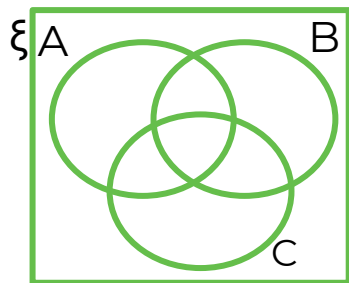
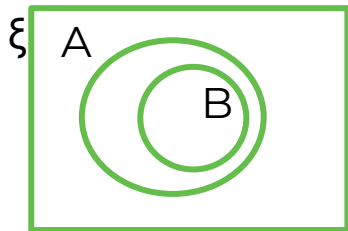
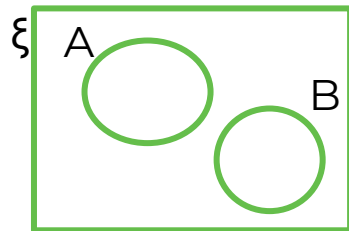
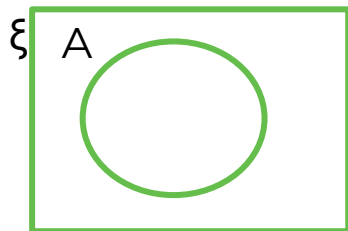
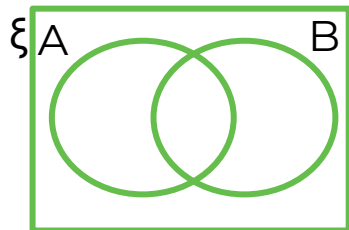
Maths

Mrs Dennett

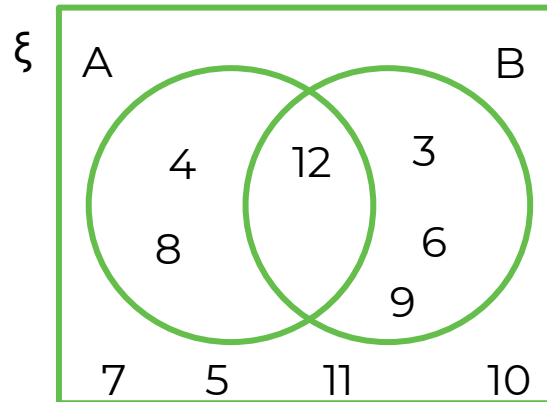


Complement of a set

1. Shade A' for each diagram.



2. Here is a Venn diagram.



List the members of the sets.

- a) B'
- b) $A \cup B$
- c) $A \cup B'$
- d) $A \cap B$
- e) $(A \cap B)'$



Complement of a set

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

$Q = \{2, 4, 6, 8\}$ $R = \{1, 2, 3, 4, 6\}$

a) Show the information in a Venn diagram.

b) List the elements of the set Q' .

4. $S = \{\text{square numbers}\}$

$T = \{\text{multiples of 3}\}$

True or False?

a) $9 \in S \cap T$

b) $16 \in T'$

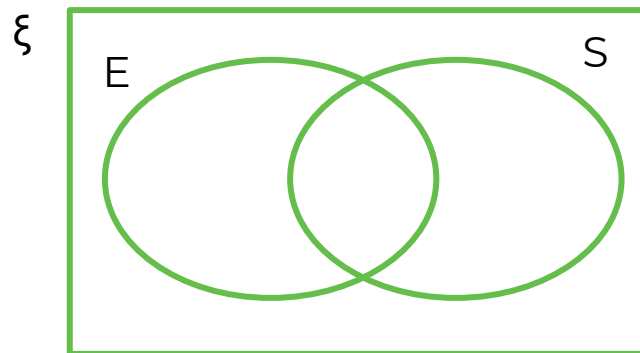
5. There are 90 students in Year 12

5 students study Economics and Statistics.

15 students only study Statistics.

44 students do not study Economics or Statistics.

a) Complete the Venn diagram.



b) How many students do not study Economics?

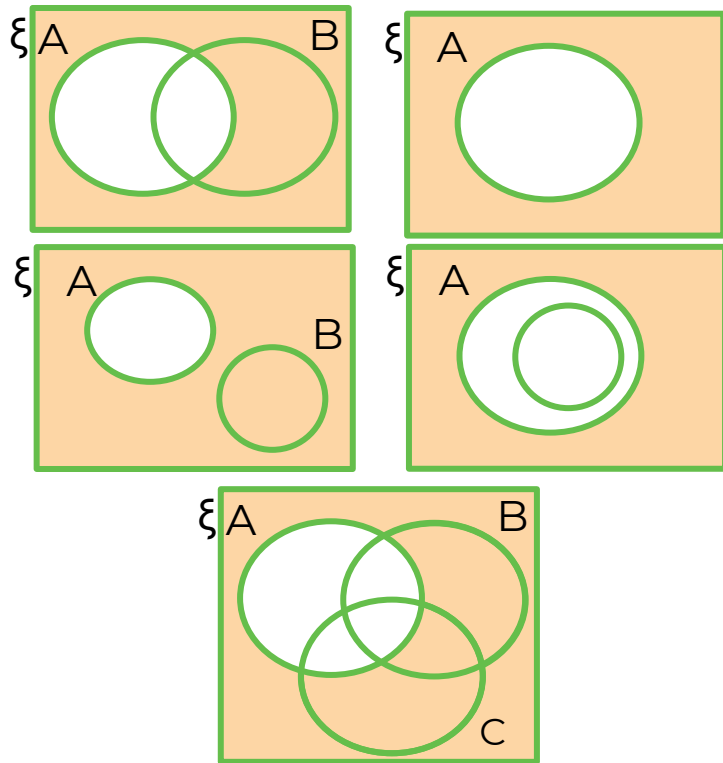


Answers

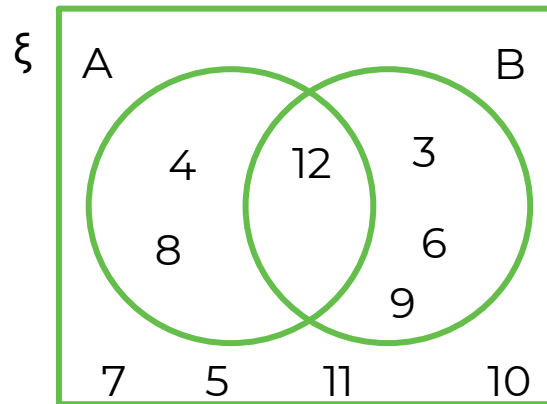


Complement of a set

1. Shade A' for each diagram



2. Here is a Venn diagram.



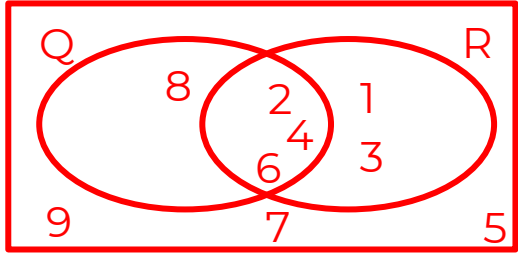
List the members of the sets.

- $B' = \{4, 5, 7, 8, 10, 11\}$
- $A \cup B = \{3, 4, 6, 8, 9, 12\}$
- $A \cup B' = \{4, 5, 7, 8, 10, 11, 12\}$
- $A \cap B = \{12\}$
- $(A \cap B)' = \{3, 4, 5, 6, 7, 8, 9, 10, 11\}$



Complement of a set

3. Show the information in a Venn diagram. ξ



$\{1, 3, 5, 7, 9\}$

b) List the elements of the set Q' .

4. $S = \{\text{square numbers}\}$

$T = \{\text{multiples of 3}\}$

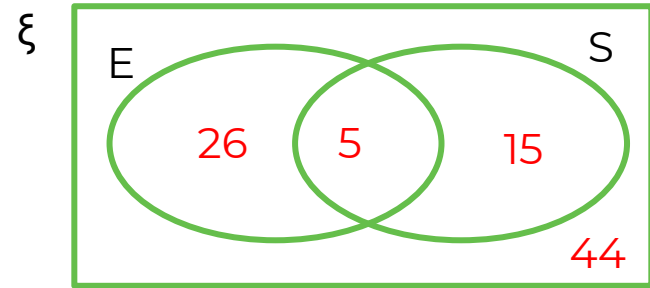
True or False?

a) $9 \in S \cap T$ **True**

b) $16 \in T'$ **True**

5. There are 90 students in Year 12
5 students study Economics and Statistics.
15 students only study Statistics.
44 students do not study Economics or Statistics.

a) Complete the Venn diagram.



b) How many students do not study Economics? **59**

