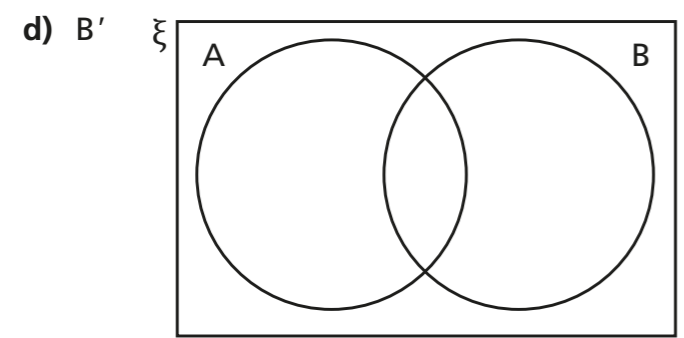
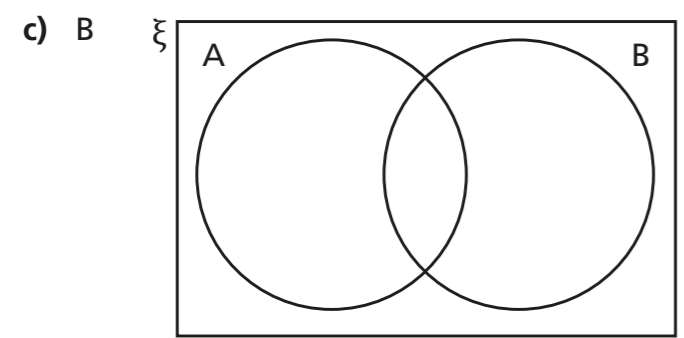
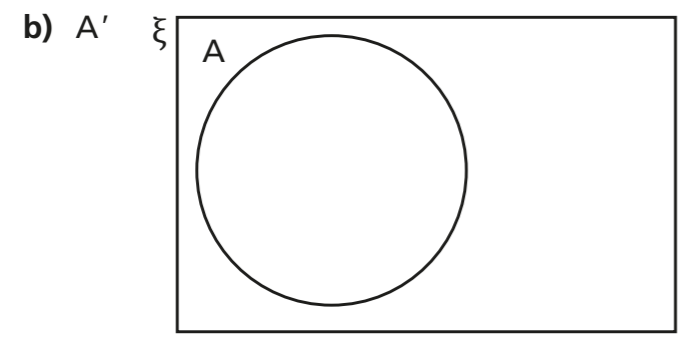
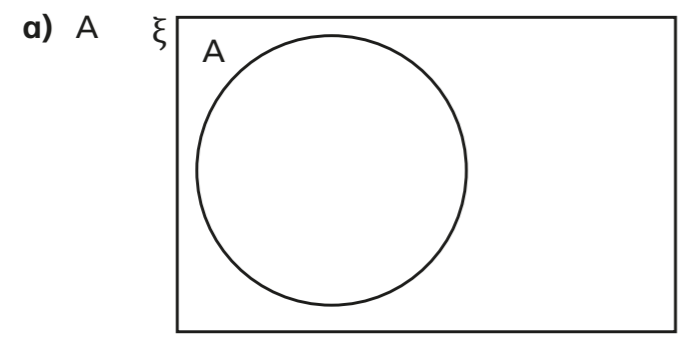


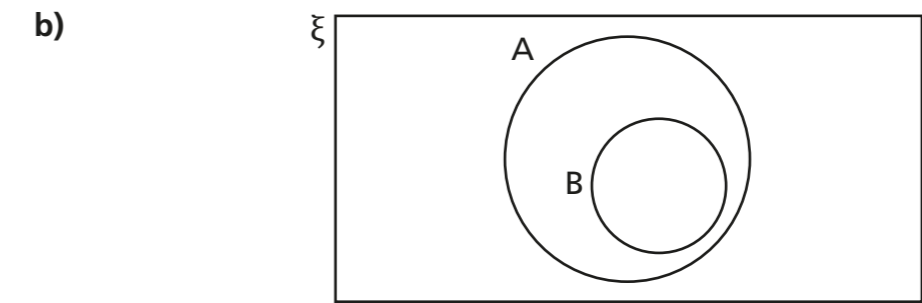
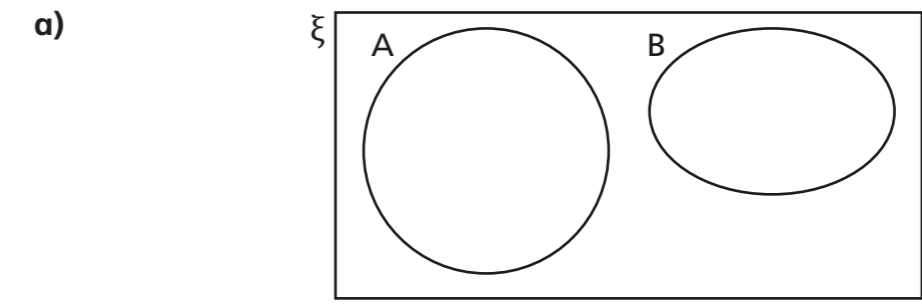
Understand and use the complement of a set

H

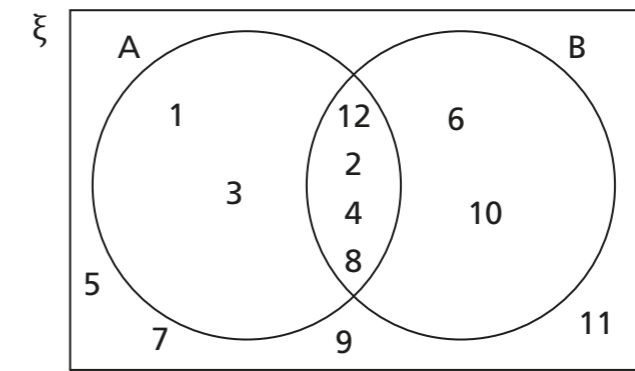
1 Shade the sets.



2 Shade A'.



3 Here is a Venn diagram.



$\xi = \{\text{numbers from 1 to 12 inclusive}\}$
 $A = \{\text{factors of 24}\}$
 $B = \{\text{even numbers}\}$

List the members of the sets.

- a) $A = \{ \text{_____} \}$
- b) $A' = \{ \text{_____} \}$
- c) $B' = \{ \text{_____} \}$
- d) $A \cup B = \{ \text{_____} \}$
- e) $A \cap B = \{ \text{_____} \}$



4

$\xi = \{100, 101, 110, 1000, 1001, 1010, 1011, 1100, 1101, 1110, 1111\}$
 $A = \{100, 110, 1000, 1111\}$
 $B = \{100, 101, 110, 1000, 1001, 1010, 1100\}$

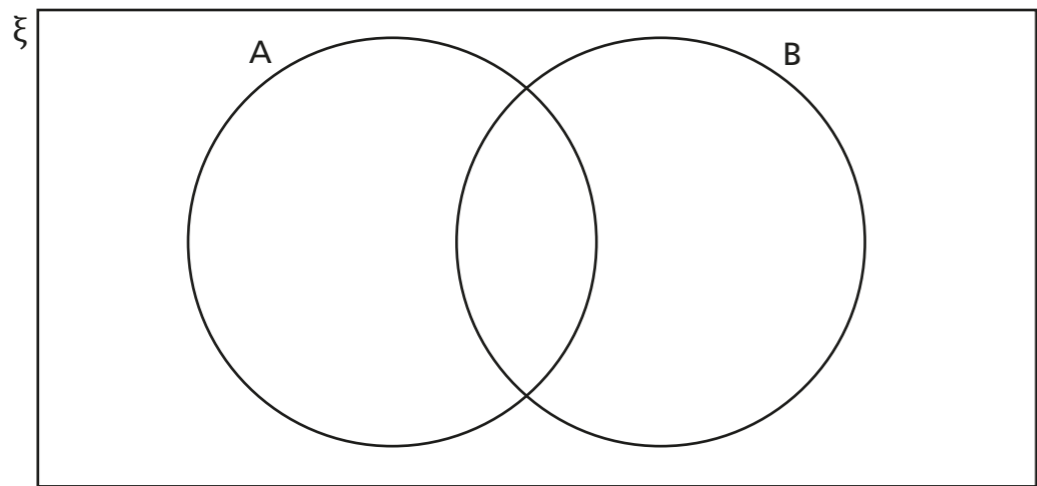
Give one member of each set.

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

5

$\xi = \{\text{numbers from 1 to 10 inclusive}\}$
 $A = \{2, 5, 6, 8\}$
 $B' = \{1, 2, 3, 7, 8\}$

a) Draw a Venn diagram to show this information.

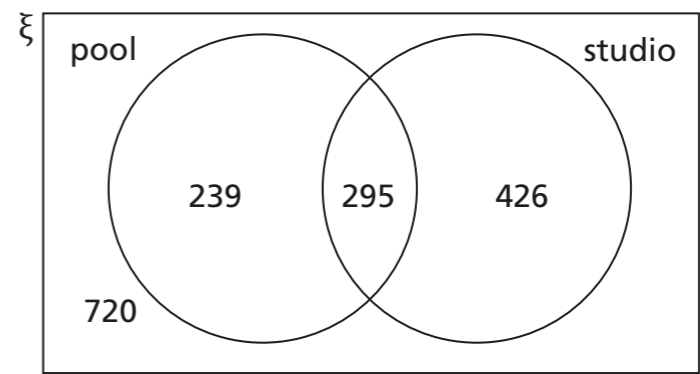


- b) List the members of $A \cap B$. _____
- c) List the members of $(A \cup B)'$. _____



6

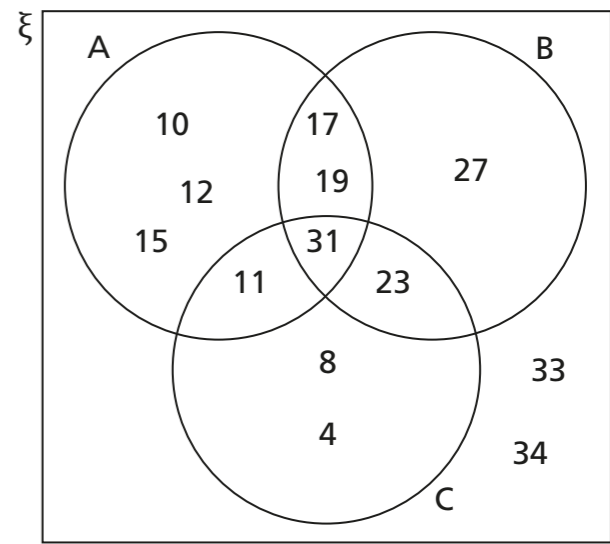
At a gym there is a swimming pool and a studio for classes. The Venn diagram shows the number of people who use the pool and the studio during one week.



- a) How many people do not use the pool but use the studio?
- b) How many people do not use the pool?
- c) How many people do not use either the pool or the studio?

7

List the members of the sets.



- a) $B' = \{ \text{_____} \}$
- b) $A' \cap B' = \{ \text{_____} \}$
- c) $(A \cap B)' = \{ \text{_____} \}$
- d) $B \cup C' = \{ \text{_____} \}$

Make up your own question like this for a partner.

