Higher Maths Nov 2018 P2 Q2

Display the following information in a Venn diagram. [3]

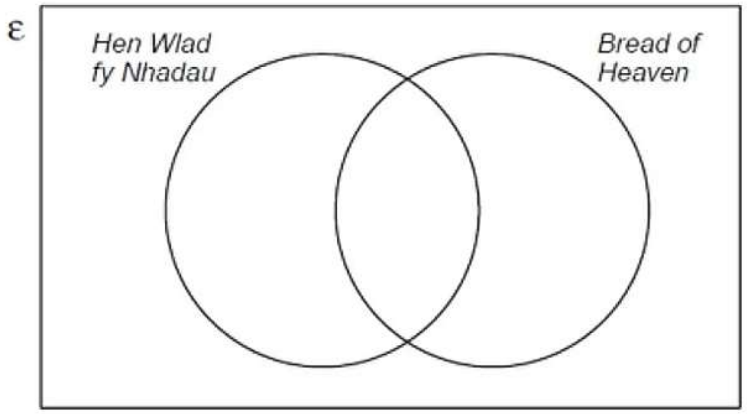
- Universal Set (ε): Integers between 74 and 80 inclusive.
- Set A: Even numbers.
- Set B: Multiples of 3.

Higher Maths Summer 2018 P1 Q2

30 rugby supporters travel to Cardiff on a coach.
They decide to investigate how many of them can sing one, or both, of the songs *'Hen Wlad fy Nhadau'* and *'Bread of Heaven'*.

- 12 say they can sing both songs.
- 18 say they can sing *'Bread of Heaven'*.
- 5 say they cannot sing either of the songs.

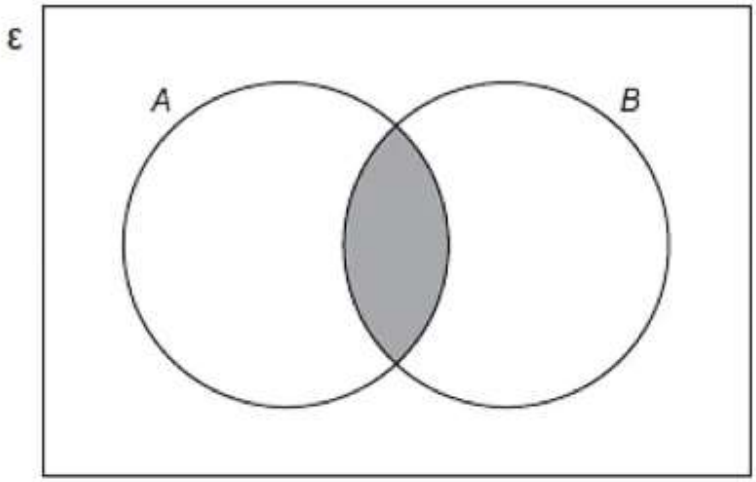
(a) Complete the Venn diagram below to show this information.
The universal set, ε, contains all of the 30 supporters on the coach. [3]



(b) One of these supporters is chosen at random.
What is the probability that this person can sing *'Hen Wlad fy Nhadau'*? [2]

Higher Maths Summer 2019 P2 Q3

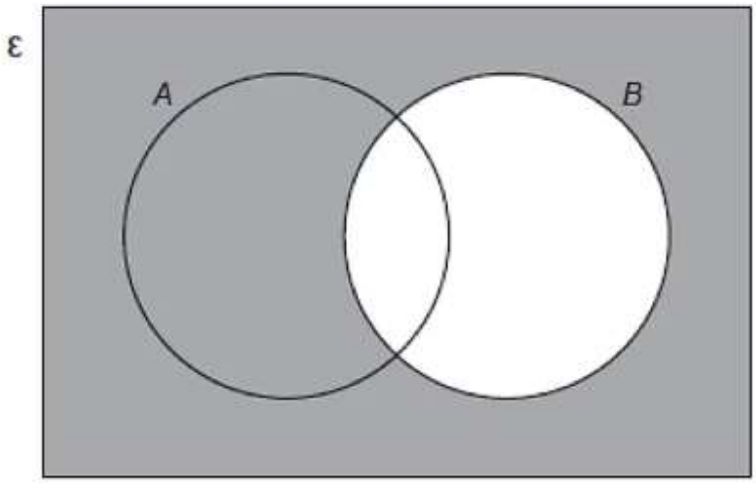
(a)



Which of the following sets represents the **shaded** area in the Venn Diagram shown above?
Circle your answer. [1]

A' $A \cup B$ B' $A \cap B$ $A' \cap B$ $A \cup B'$

(b)



Which of the following sets represents the **shaded** area in the Venn Diagram shown above?
Circle your answer. [1]

A' $A \cup B$ B' $A \cap B$ $A' \cap B$ $A \cup B'$

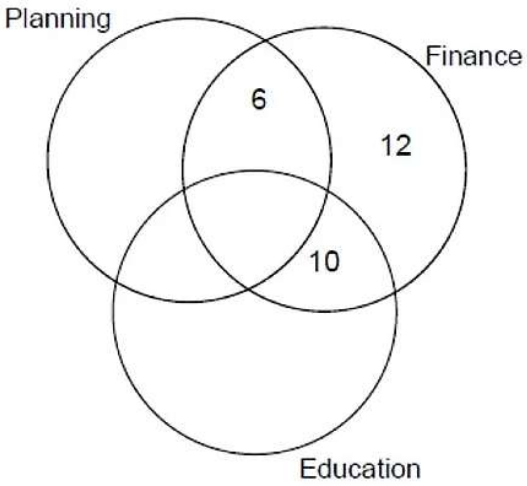
Higher Maths Sample 2 P2 Q4

A total of 45 councillors make up the Planning, Finance and Education committees of a local council.
Some of the councillors sit on two of these committees.
No councillor sits on all three committees.

2 councillors sit on both the Planning Committee and the Education Committee.
There are 18 councillors on the Education Committee.

(a) Complete the Venn diagram.

[3]



(b) How many councillors sit on both the Planning and Finance committees?

[1]

(c) One of these 45 councillors is chosen at random.
What is the probability that this councillor is on the Planning Committee?

[2]

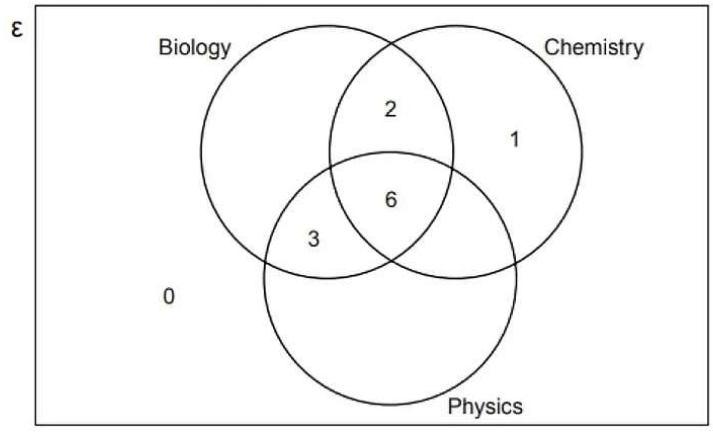
Higher Maths Nov 2016 P2 Q5

At a college, a total of 28 students study one or more of the science subjects: Biology, Chemistry and Physics.
The 28 students form the universal set, ε.
Some parts of the Venn diagram below have already been completed.

It is also known that:

- 5 students study only Biology
- 13 students study Chemistry

(a) Complete the Venn diagram. [3]



(b) How many students study Biology and Chemistry but not Physics? [1]

(c) One of the students is chosen at random.
What is the probability that this student studies Biology? [2]

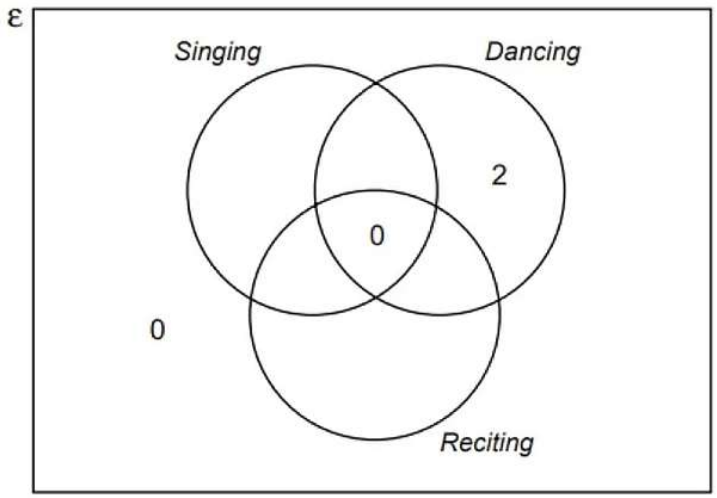
Higher Maths Nov 2017 P1 Q7

A group of pupils from a school took part in The Urdd National Eisteddfod.
All of them competed in at least one of the following competitions: *Singing*, *Dancing* or *Reciting*.

- 2 of them only took part in a *Dancing* competition.
- 5 only took part in a *Reciting* competition.
- No one took part in both a *Reciting* and a *Dancing* competition.
- 3 took part in both a *Singing* and a *Dancing* competition.
- 9 took part in a *Reciting* competition.
- 22 took part in a *Singing* competition.

The Venn diagram below shows some of the above information.
The universal set, ε, contains all of the pupils in the group.

One of the pupils in the group is chosen at random.
What is the probability that this person **only** took part in a *Singing* competition? [5]

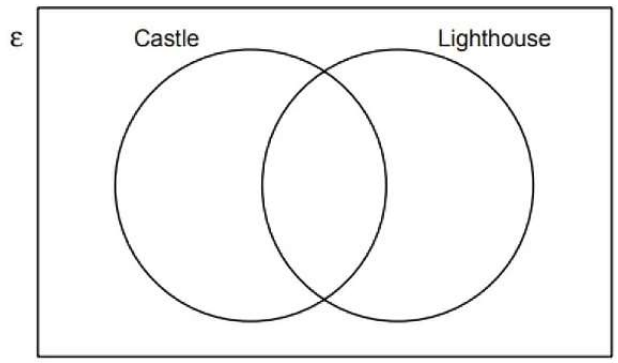


Higher Maths June 2017 P1 Q7

A group of 20 people visited Anglesey for a weekend break.

- 10 of the group visited Beaumaris Castle.
- 13 of the group visited South Stack Lighthouse.
- 4 of the group did not visit either of these places.

(a) Complete the Venn diagram below to show this information.
The universal set, ε, contains all of the 20 people in the group. [3]



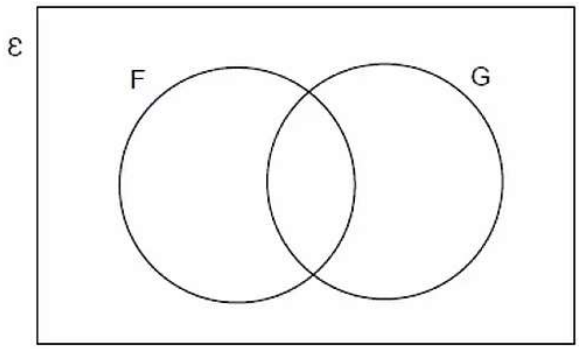
(b) One person is chosen at random from the group.
What is the probability that this person visited only one of the two places? [2]

Higher Maths Sample 1 P2 Q14

30 students in a Year 11 class have decided which subjects they are going to study next year.

- 21 have decided to study French (F)
- 12 have decided to study German (G)
- 5 have decided not to study either French or German.

(a) Complete the Venn diagram below to show this information.
The universal set Ɛ contains all the students in the class. [2]



(b) Given that a student, chosen at random, has decided to study French, what is the probability that this student has also decided to study German? [2]