BACCALAURÉAT GENERAL
ÉPREUVE SPÉCIFIQUE DES SECTIONS EUROPÉENNES
MATHÉMATIQUES - ANGLAIS

Corrigé du sujet 8

For the first part, the expected points are :

- Give examples and uses of estimations.
- You can try to predict things with estimations. You can sometimes use mathematical tools, like sequences for example, to help predict things.

Exercise

1. a. $a_2 = 0.88 \times 70 + 18 = 79.6$. So $a_2 \approx 80$. There were 80 members in 2016.
$a_3 = 0.88 \times 80 + 18 = 88.4$. So $a_3 \approx 88$. There were 88 members in 2017.

b. 88% of the members are staying and there are 18 new members so :
$a_{n+1} = 0.88a_n + 18$.

2. a. =B3*0.88+18 =B3-B3*0.12+18

b. During the year 2023 the number of members will be 121.

c. It's not possible to have a number greater than 150.
(150 is the limit of the sequence (a_n) when n tends to infinity).