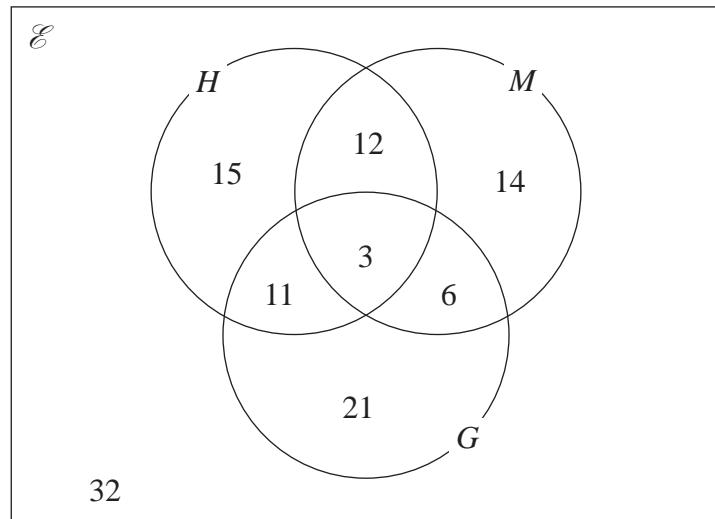


Answer ALL ELEVEN questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1 The Venn diagram shows information about the numbers of students in a school who study History (H), Music (M) and Geography (G).



- (a) Find the number of students who study Geography. (1)
- (b) Find the number of students who study exactly two of the subjects History, Music and Geography. (1)
- (c) On the Venn diagram above, shade the region that represents the set $H \cap G'$ (1)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA

Question 1 continued

\mathcal{E} is the universal set and A and B are two sets such that

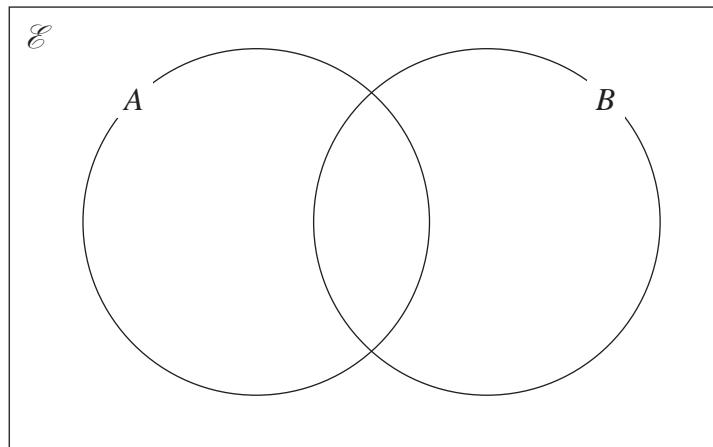
$$\mathcal{E} = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$$

$$A \cap B = \{\text{multiples of } 3\}$$

$$A \cap B' = \{2, 4, 8, 10\}$$

$$(A \cup B)' = \{1, 7\}$$

- (d) Use the information about the sets \mathcal{E} , A and B to complete the Venn diagram below.



(3)

- (e) Find $n(B)$

(1)

(Total for Question 1 is 7 marks)



P 6 9 3 1 0 A 0 3 3 2