



S26-10min Venn Diagrams: 10-minute Pack

EDEXCEL 1ST0 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / ____

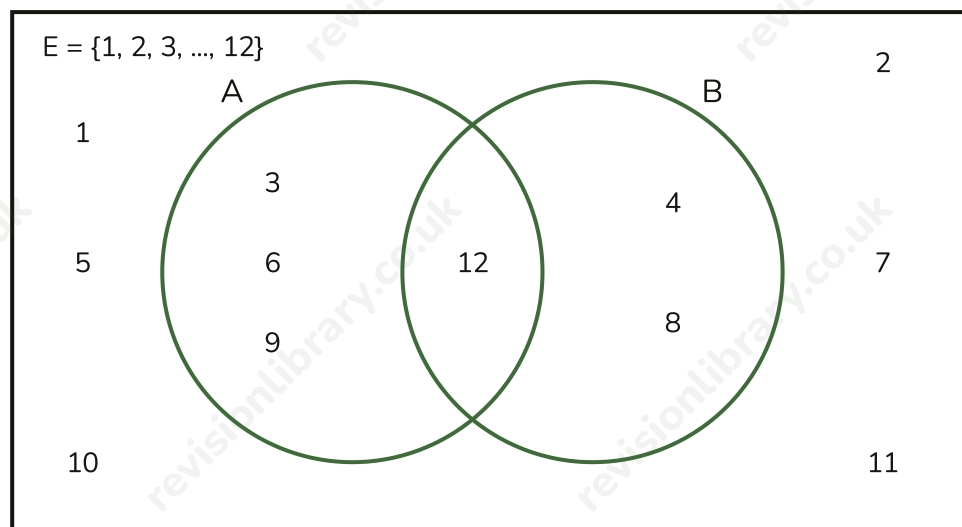
Answer ALL questions. Show all your working.

- 1** The universal set is $E = \{1, 2, 3, \dots, 12\}$.

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

$B = \{\text{multiples of } 4\}$

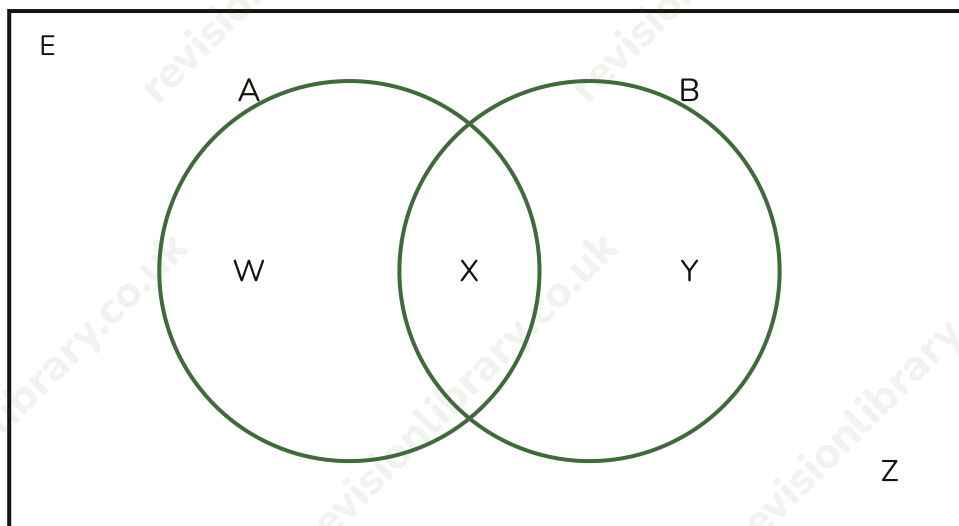
The Venn diagram shows the elements of E placed into sets A and B .



- (a) List the elements of A intersect B . (1)
- (b) List the elements that are in neither A nor B . (1)
- (c) Write down $n(A)$. (1)
- (d) Work out $n(A \text{ union } B)$. (2)

(Total for Question 1 is 5 marks)

- 2 The Venn diagram shows two sets, A and B, inside the universal set E. The four regions are labelled with the letters W, X, Y and Z.



- (a) Write down the letter that represents A intersect B. (1)

-
(b) Write down the letter that represents the elements in neither A nor B. (1)

-
(c) Write down the letter that represents the elements that are in A but not in B. (1)

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(Total for Question 2 is 3 marks)

Mark scheme · S26-10min Venn Diagrams: 10-minute Pack

Question 1

- (a) **B1** {12} cao
- (a) **Answer: {12}**
- (b) **B1** {1, 2, 5, 7, 10, 11} cao
- (b) **Answer: {1, 2, 5, 7, 10, 11}**
- (c) **B1** 4 cao
- (c) **Answer: 4**
- (d) **M1** $4 + 3 - 1$, oe (or lists A union B = {3,4,6,8,9,12})
- (d) **A1** 6 cao
- (d) **Answer: 6**

Question 2

- (a) **B1** X cao
- (a) **Answer: X**
- (b) **B1** Z cao
- (b) **Answer: Z**
- (c) **B1** W cao
- (c) **Answer: W**