

# Venn Diagrams

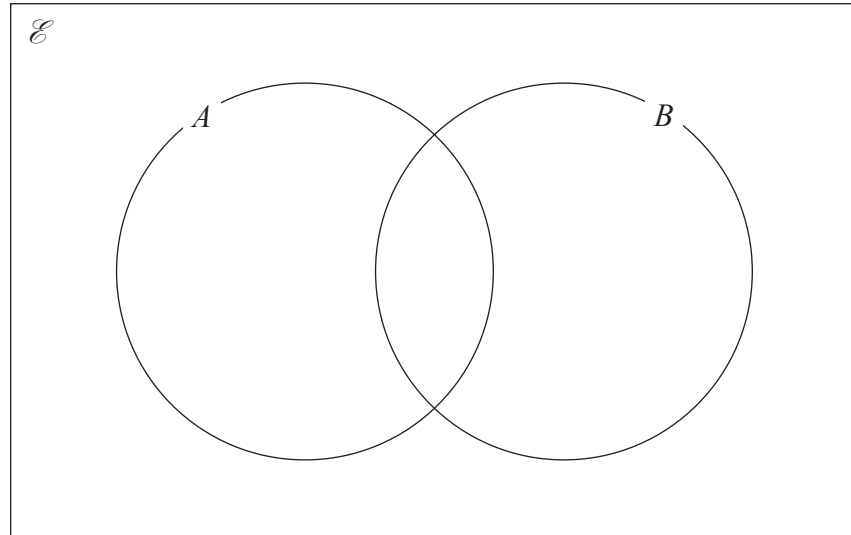
November 2021 Paper 1

21  $\mathcal{E} = \{\text{even numbers less than } 19\}$

$A = \{6, 12, 18\}$

$B = \{2, 6, 14, 18\}$

Complete the Venn diagram for this information.



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(Total for Question 21 is 3 marks)

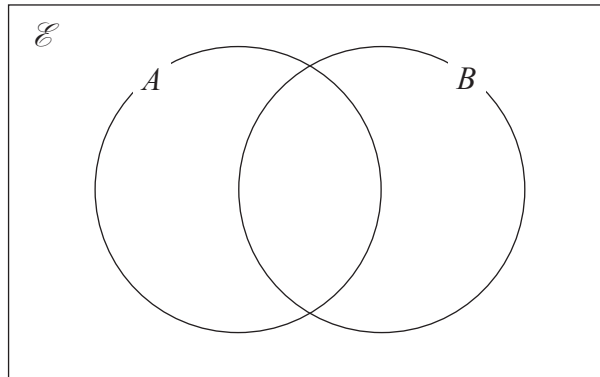
June 2020 Paper 2

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

$A = \{\text{even numbers}\}$

$B = \{\text{factors of } 10\}$

(a) Complete the Venn diagram for this information.



(3)

A number is chosen at random from the universal set,  $\mathcal{E}$

(b) Find the probability that this number is in the set  $A \cap B$

.....  
(2)

**(Total for Question 22 is 5 marks)**

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## November 2024 Paper 2

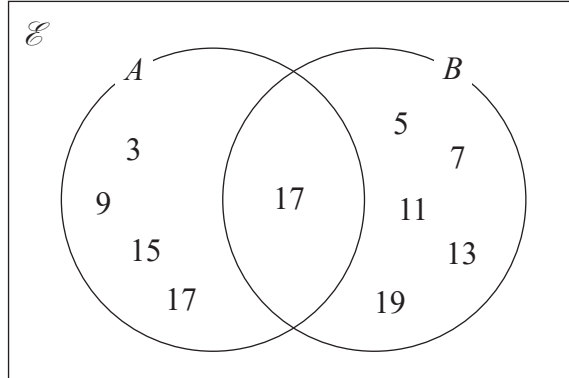
23  $\mathcal{E} = \{\text{odd numbers between 0 and 20}\}$

$A = \{3, 9, 15, 17\}$

$B = \{5, 7, 11, 13, 17, 19\}$

Tom was asked to draw a Venn diagram for this information.

Here is his answer.



Write down two things Tom should do to make his answer fully correct.

1.....

.....

2.....

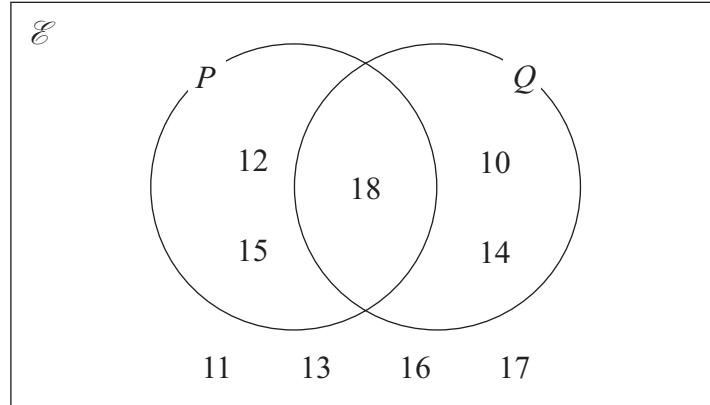
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(Total for Question 23 is 2 marks)

June 2024 Paper 1

23 Here is a Venn diagram.



(a) Write down the numbers that are in set  $P'$

.....  
(1)

A number is chosen at random from the universal set,  $\mathcal{E}$

(b) Find the probability that this number is in the set  $P \cup Q$

.....  
(2)

.....  
**(Total for Question 23 is 3 marks)**

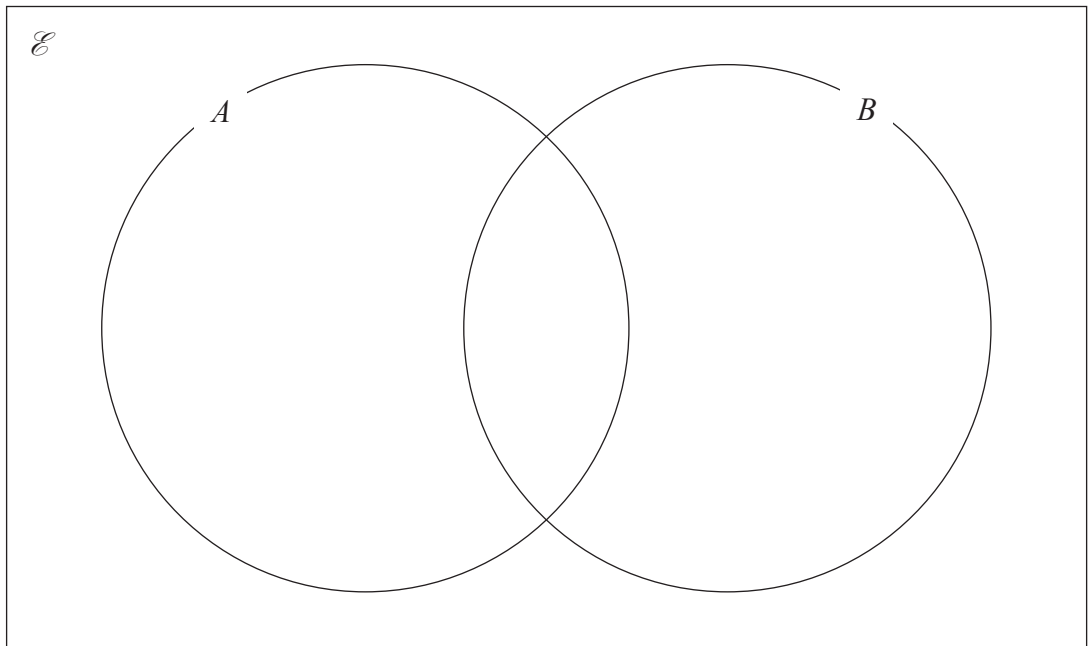
June 2023 Paper 1

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

$A = \{\text{odd numbers}\}$

$B = \{\text{square numbers}\}$

(a) Complete the Venn diagram for this information.



(3)

A number is chosen at random from the universal set  $\mathcal{E}$

(b) Find the probability that this number is in the set  $B'$

.....  
(2)

**(Total for Question 24 is 5 marks)**

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