

5. The universal set, $\epsilon = \{22, 23, 24, 25, 26, 27, 28, 29, 30\}$.

Within this universal set ϵ ,

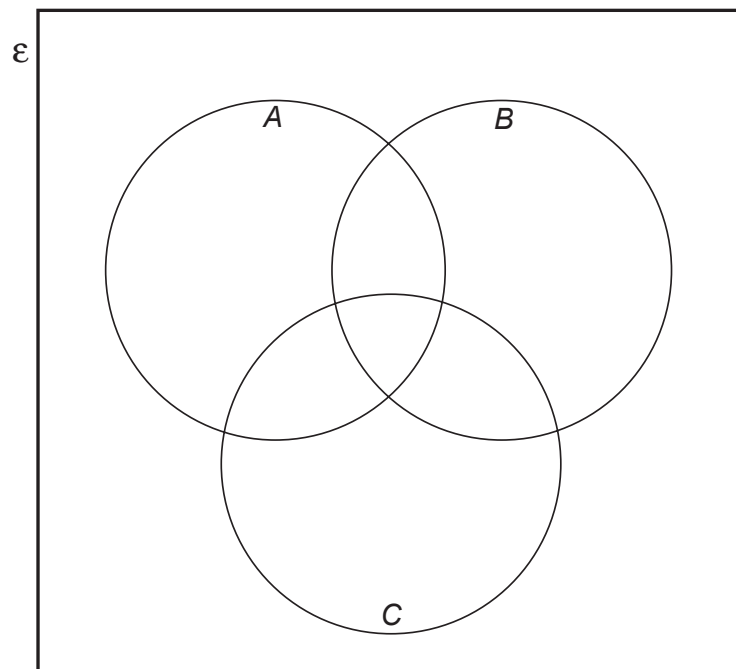
- set A is the multiples of 2
- set B is the multiples of 4
- set C is the multiples of 5

- (a) Complete the Venn diagram.

[3]

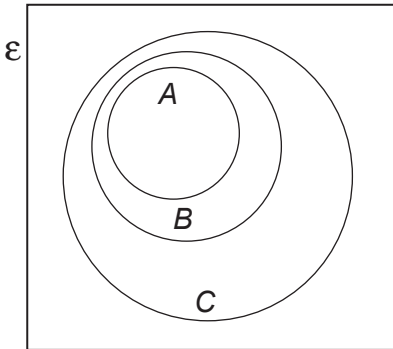
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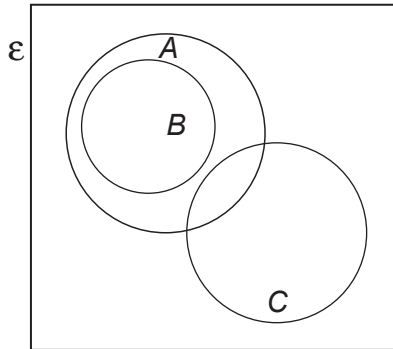


- (b) Which one of the following Venn diagrams could also be used to represent the sets ϵ , A , B and C ?
 You must give a reason for your choice. [2]

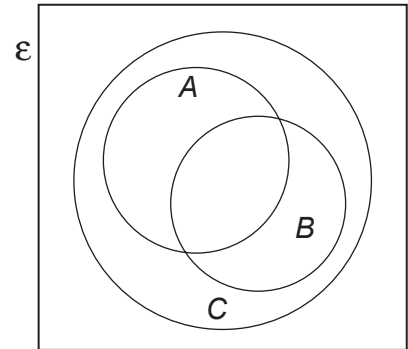
Venn Diagram 1



Venn Diagram 2



Venn Diagram 3



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- (c) A whole number is selected at random from the universal set $\epsilon = \{22, 23, 24, 25, 26, 27, 28, 29, 30\}$.

Find the probability that the number selected is: [3]

a multiple of 2 but not a multiple of 4

not a multiple of 5

a multiple of 5 and a multiple of 2