

Day: _____ Date: _____

Mathematics

Set Theory BJC pass questions

1.

Place each element in the correct region in the Venn diagram below.

(a) 3 is in X but not in Y,

[1]

(b) 1 is in Y but not in X,

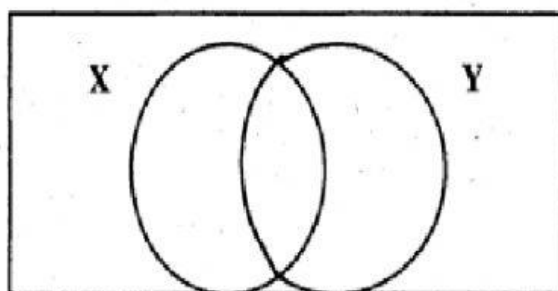
[1]

(c) $4 \in X \cap Y$,

[1]

(d) $2 \in (X \cup Y)^I$

[1]



2.

If $A = \{2, 3, 4\}$ and $B = \{3, 5, 7\}$ List the members of

(i) $A \cup B$

Answer: {_____}

(ii) $A \cap B$

Answer: {_____}

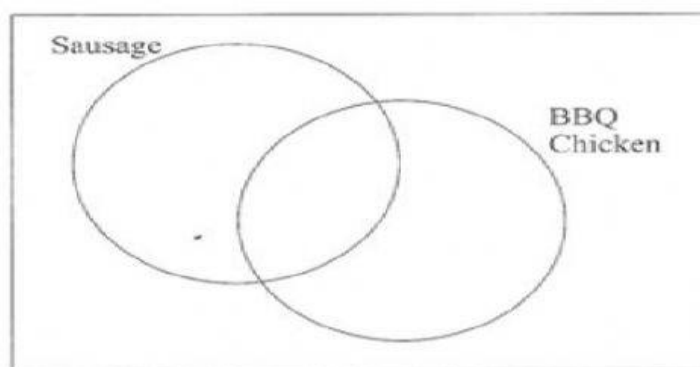
(iii) $n(A \cup B)$

Answer: {_____}

3

5 liked sausage, 6 liked BBQ chicken, 4 liked sausage and BBQ chicken, 3 liked neither.

- (i) Complete the Venn diagram to show this information.

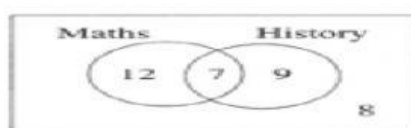


[4]

- (ii) Use the diagram to state how many friends were in this group.

4.

The Venn diagram below shows the results of a survey of a class.



- (a) How many students are in the class?

Answer: _____ [1]

- (b) How many students take neither History nor Maths?

Answer: _____ [1]

- (c) How many students took both subjects?

Answer: _____ [1]

- (d) How many students took Mathematics only?

Answer: _____ [1]

