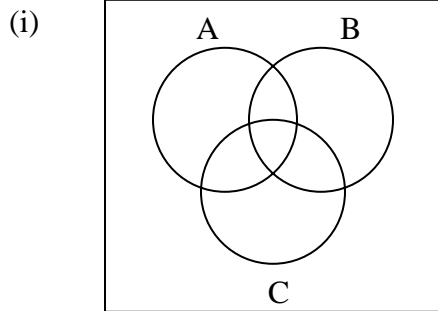


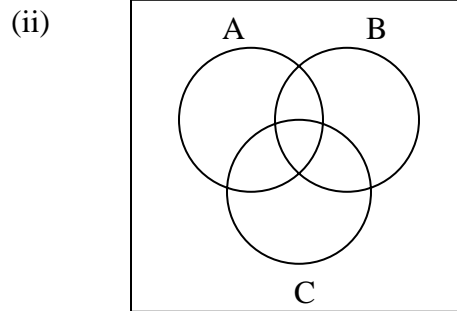
Math 211 Sets Practice Worksheet

Part 1:

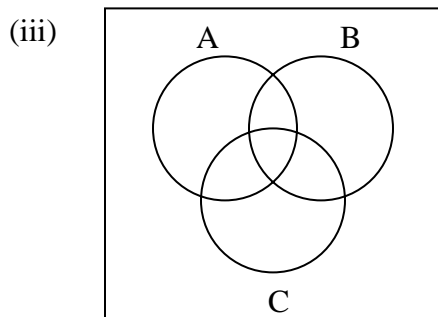
Shade the region of the Venn Diagram indicated by the following sets.



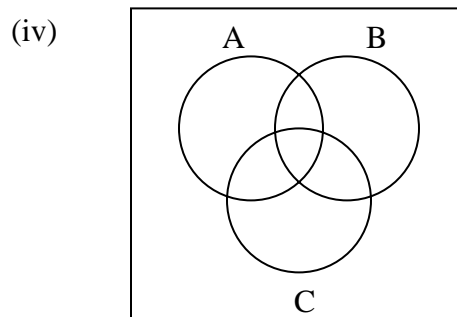
Shade:  $(A' \cup B) \cap C$



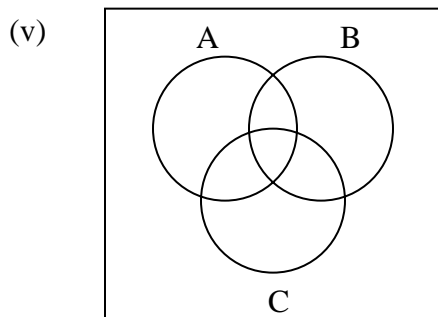
Shade:  $(A \cap B)' \cup C$



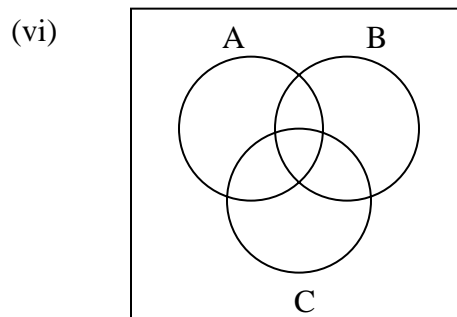
Shade:  $A \cup (C' \cup B)$



Shade:  $(A \cap B') \cap C$



Shade:  $A' \cup (C' \cap B)$



Shade:  $(A \cap B')' \cup C$

Part II: Write down the elements in the following sets.

Let  $U = \{0,1,2,3,4,5,6,7,8,9,10\}$ ;  $A = \{0,1,2,3,5,8\}$ ;  $B = \{0,2,4,6\}$ ;  $C = \{1,3,5,7\}$

i)  $A \cup B =$

ii)  $B' =$

iii)  $A \cap B' =$

iv)  $B \cup C =$

v)  $B \cup C' =$

vi)  $A' \cup C =$

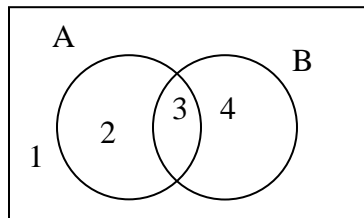
vii)  $(A' \cap C) \cup B =$

viii)  $(A \cup B)' =$

ix)  $(A \cup C) \cap B$

x) Write down a subset of  $A =$

Part III: Refer to the diagram to answer the questions below.



What set notation would you use to represent the following regions? (I.e. if those regions were shaded, what set notation would you use to identify the shaded region). Hint – make a separate sketch for each.

Example: Region 3 could be written as  $A \cap B$

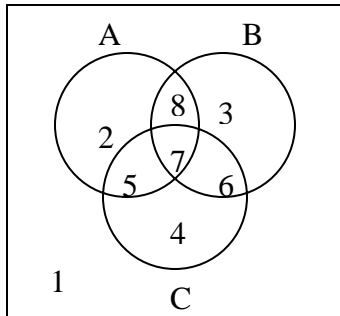
i) Region 1, 2 and 4 (i.e. imagine all region 1, 2 and 4 were shaded):

ii) Region 2 only:

iii) Region 1 only:

iv) Region 1 and 4:

Part IV: Refer to the diagram to answer the questions below.



What set notation would you use to represent the following regions? (I.e. if those regions were shaded, what set notation would you use to identify the shaded region).

i) Region 7 only:

ii) Region 1 only:

iii) Regions 1 and 4:

iii) Regions 3 and 6:

iv) Regions 4,5, 6, 7 & 8