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    'tipo': 'Tarea',
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    'materia': '1645 Diseño Digital Moderno',
    'semestre': '2022-1',
    'enunciado': 'Demostrar los teoremas usando diagrams de Venn',
    'fecha': '28-09-21'
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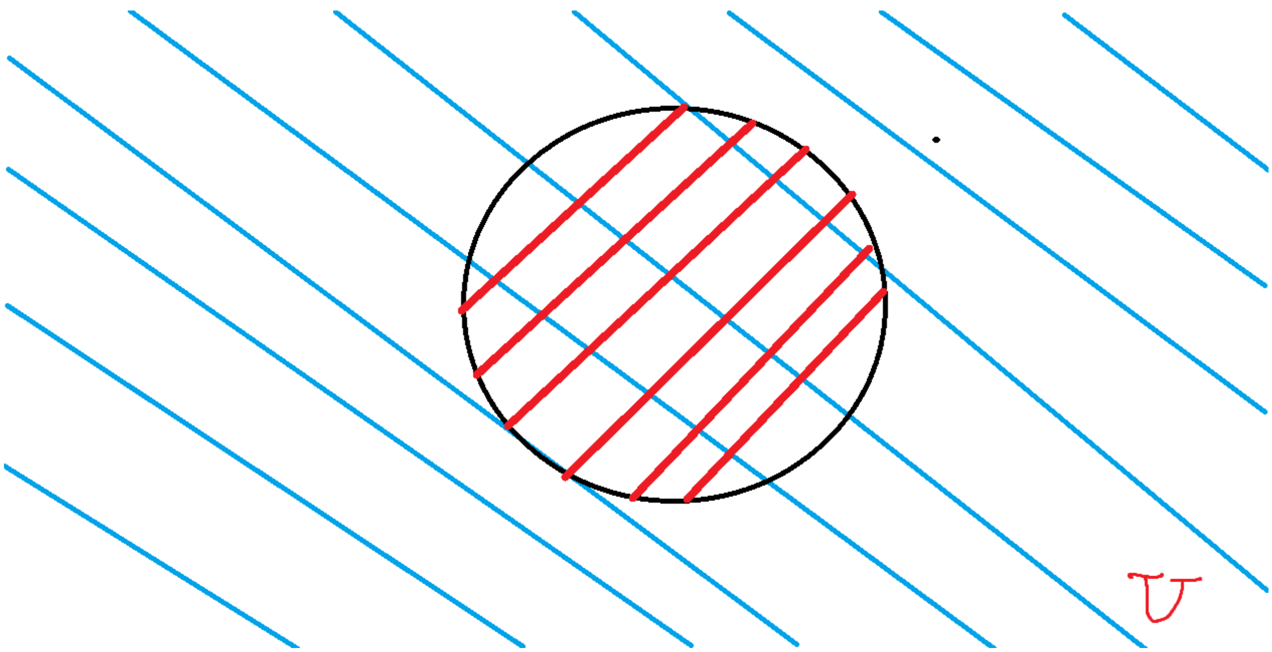
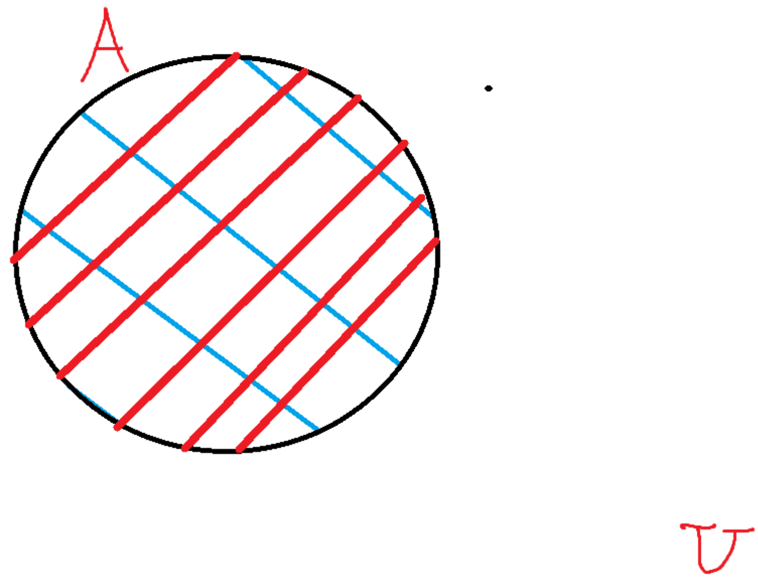
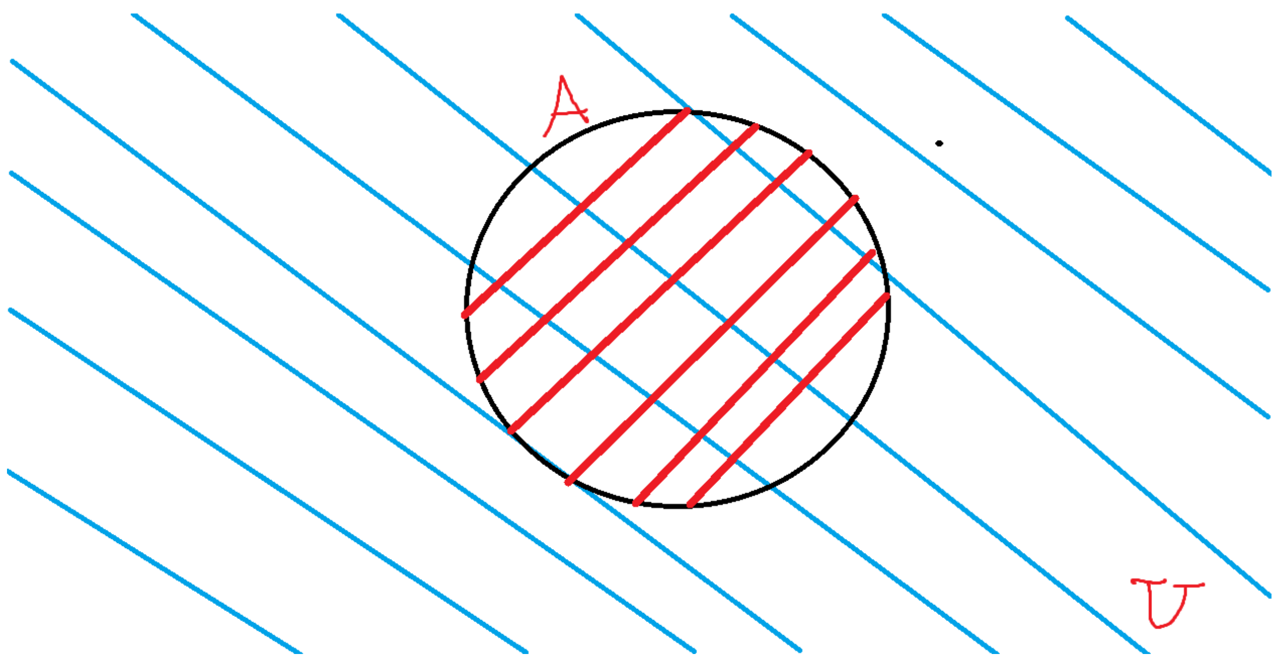
Demostrar los teoremas usando diagramas de Venn

1. $a' + 0 = a \Rightarrow a \cup \emptyset = a$
2. $a \cdot 1 = a \longrightarrow A \cap U = A$

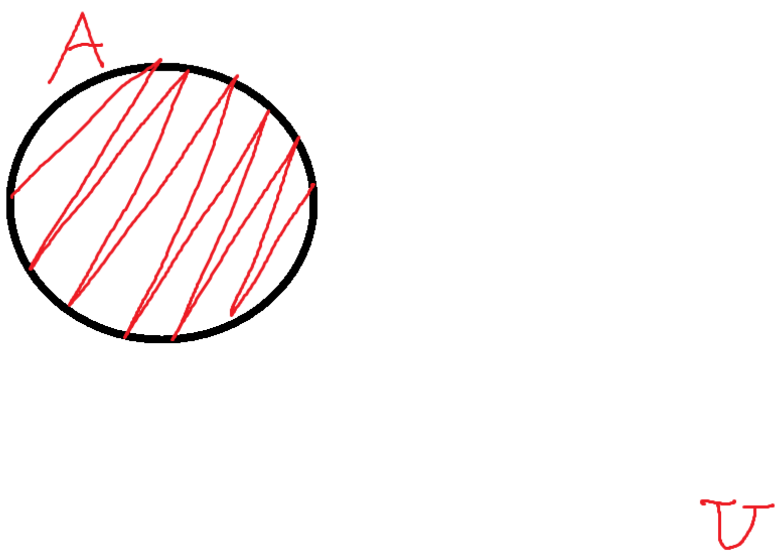




3. $a + 1 = 1 \longrightarrow A \cup U = U$

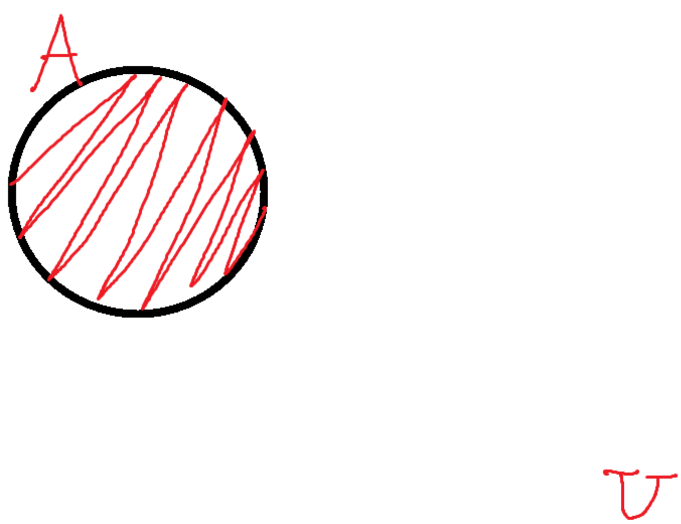


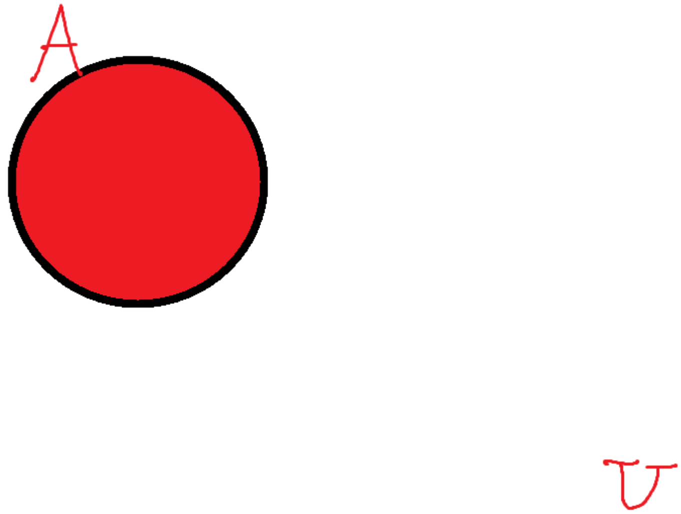
4. $a \cdot 0 = 0 \longrightarrow A \cap \emptyset = \emptyset$



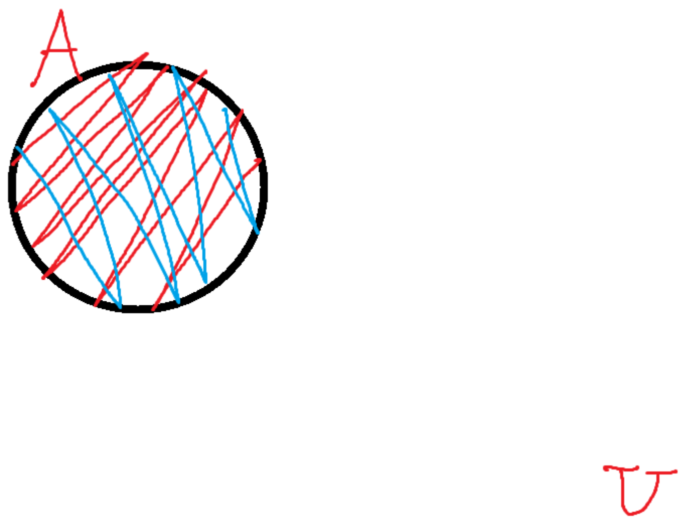
U

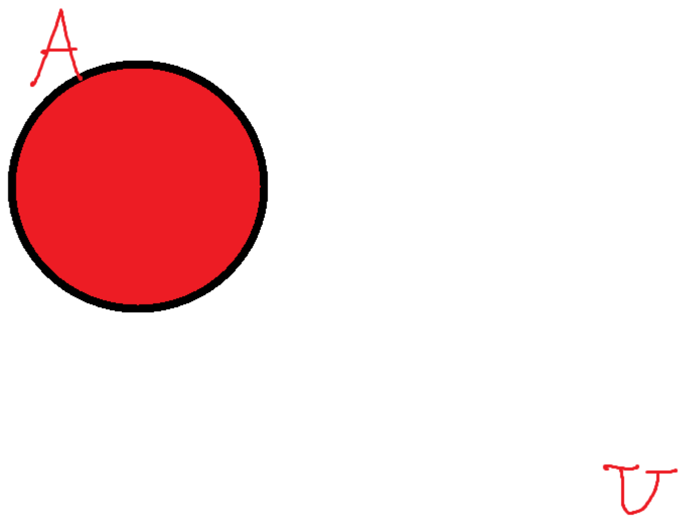
5. $a + a = a \longrightarrow A \cup A = A$



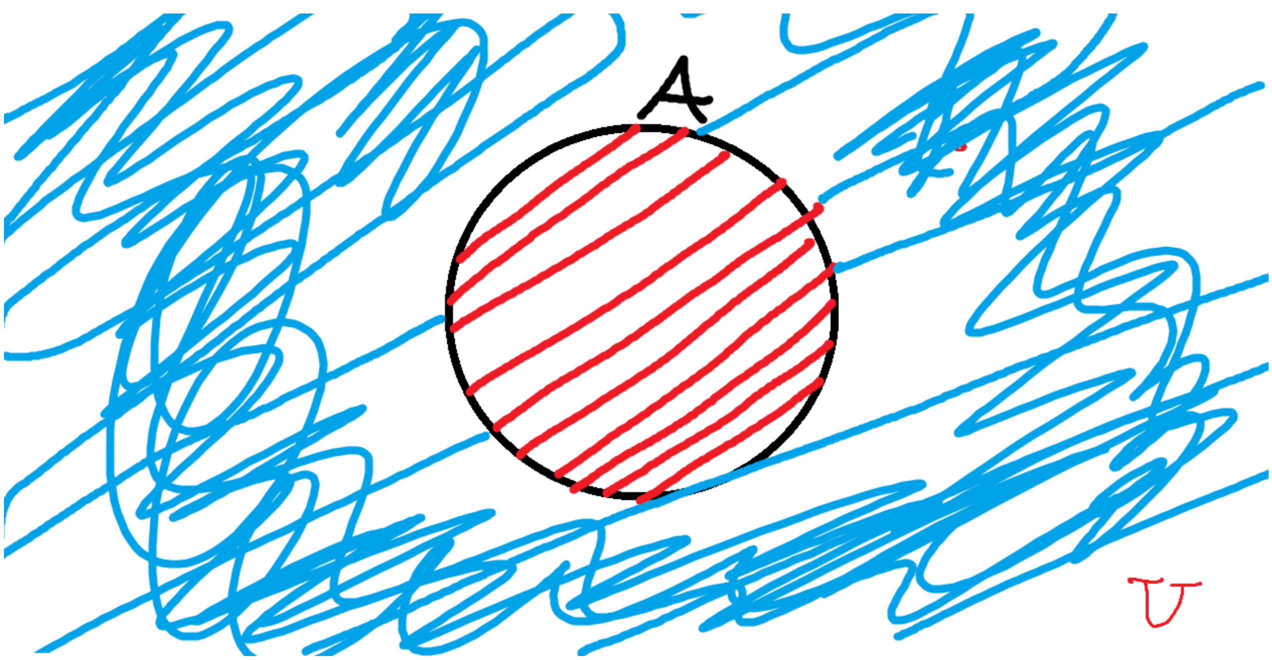


6. $a \cdot a = a \longrightarrow A \cap A = A$

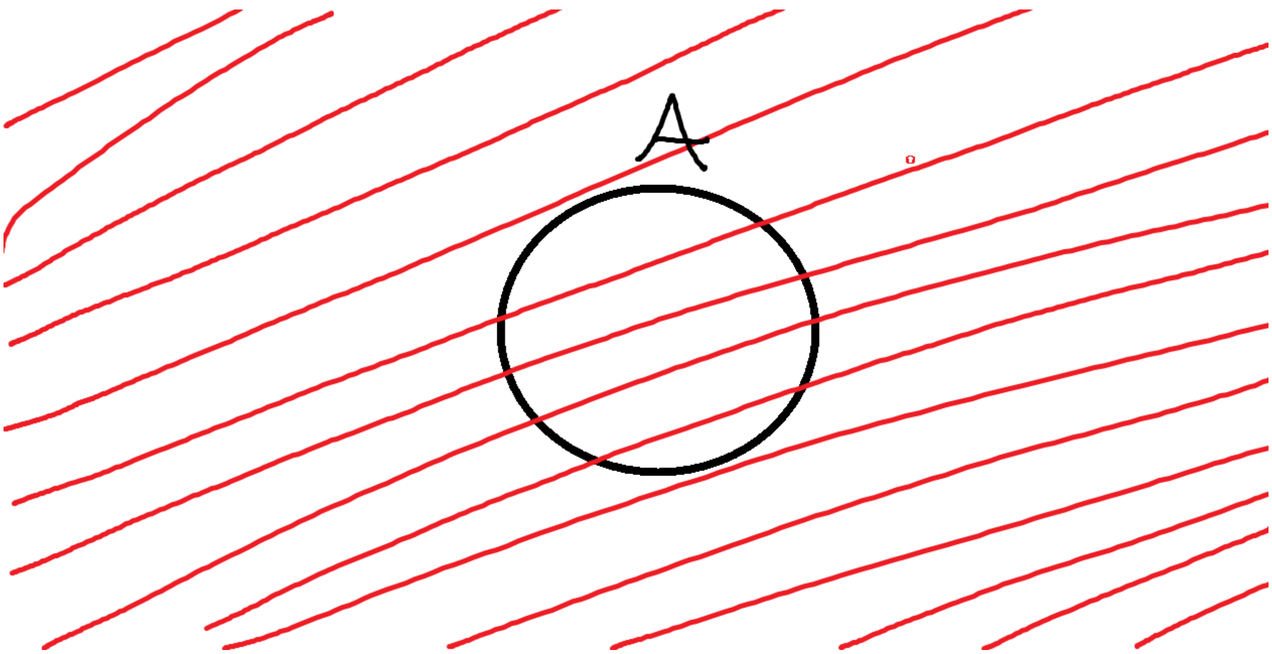




7. $a + a' = 1 \longrightarrow A \cup A' = U$

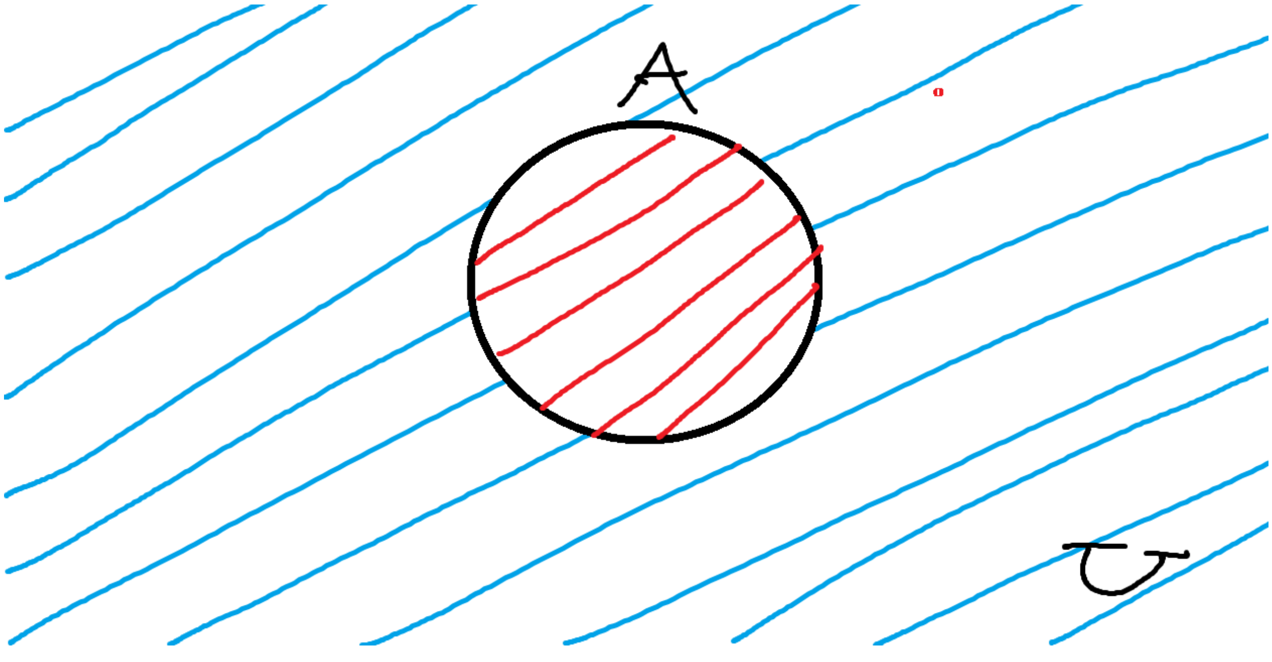


8. $(a)' = a' \longrightarrow (A)' = A$



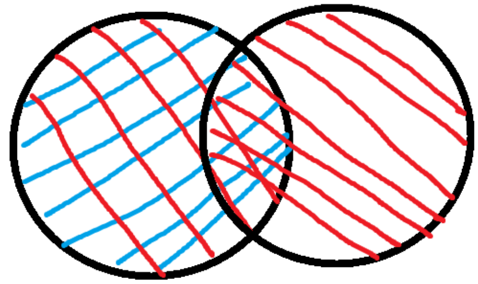
2b

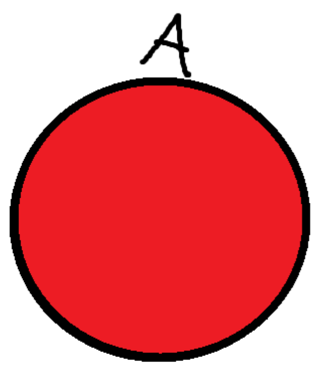
9. $a \cdot a' = 0 \longrightarrow A \cap A'$



U

10. $a(a+b)=a \longrightarrow A \cap (A \cup B) = A$





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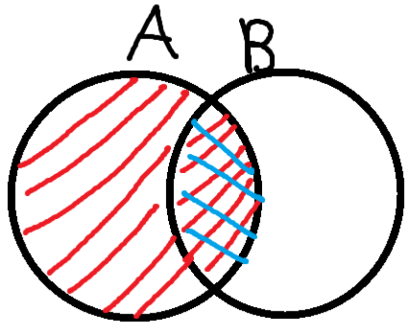
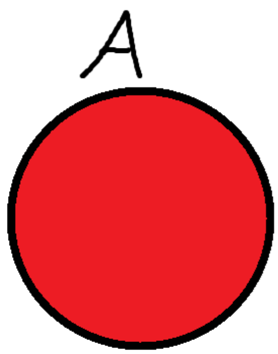
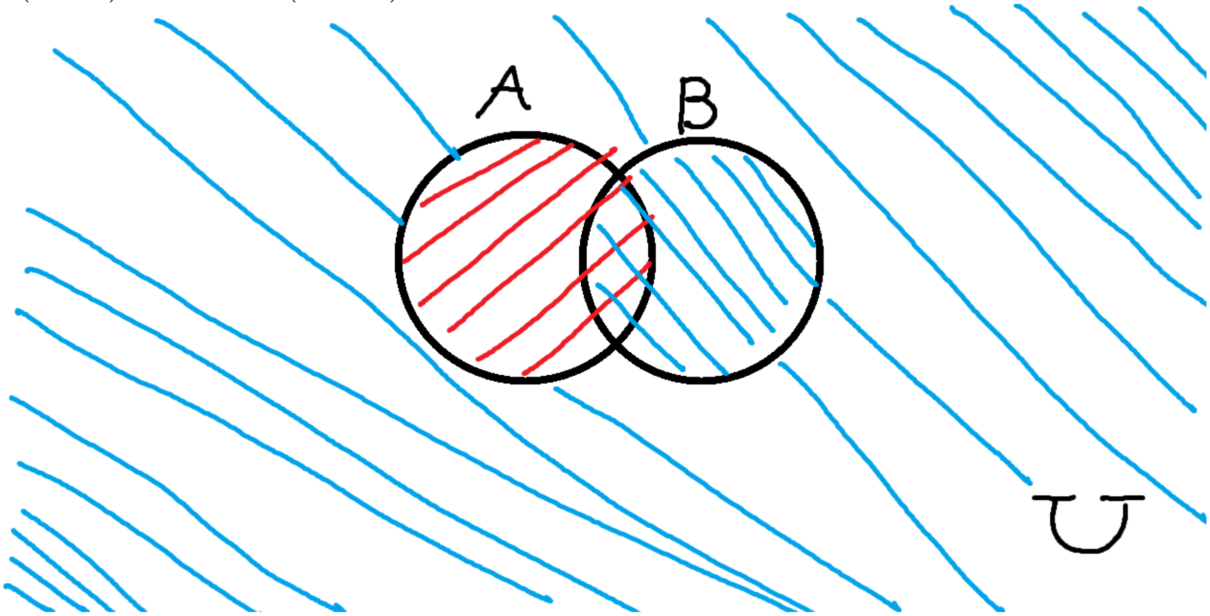
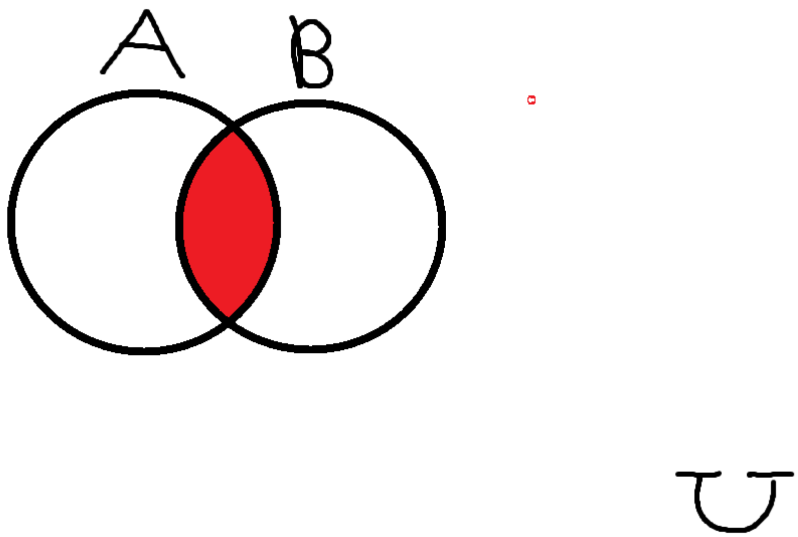
11. $a + ab = a \longrightarrow A \cap (A \cup B) = A$



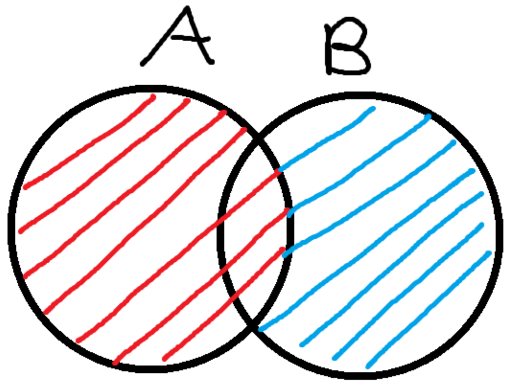


12. $a(a' + b) = ab \longrightarrow A(A' \cup B) = A \cap B$





13. $a + a'b = a + b \longrightarrow A \cup (A' \cap B) = A + B$



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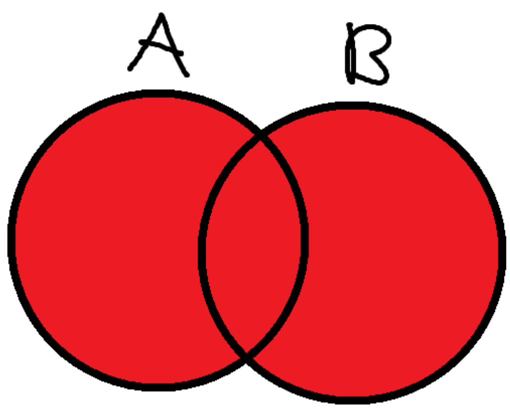

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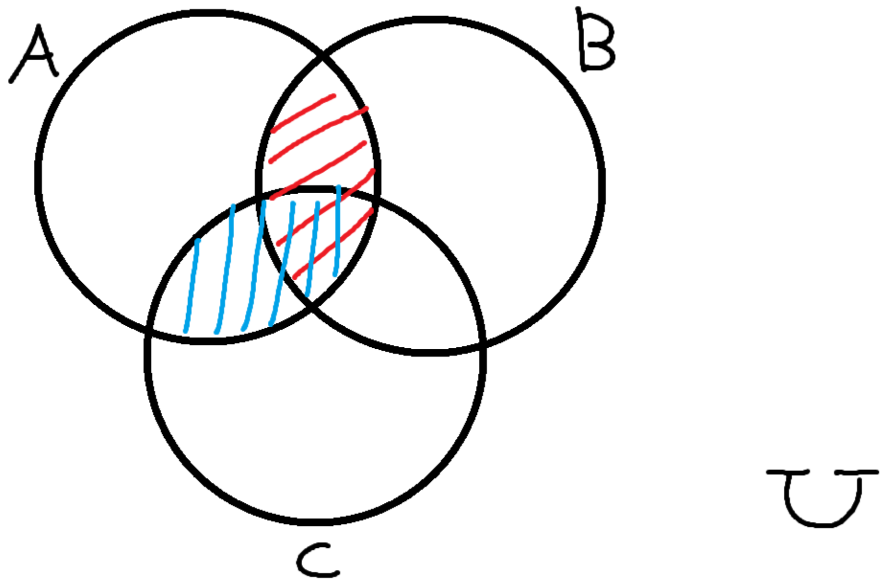
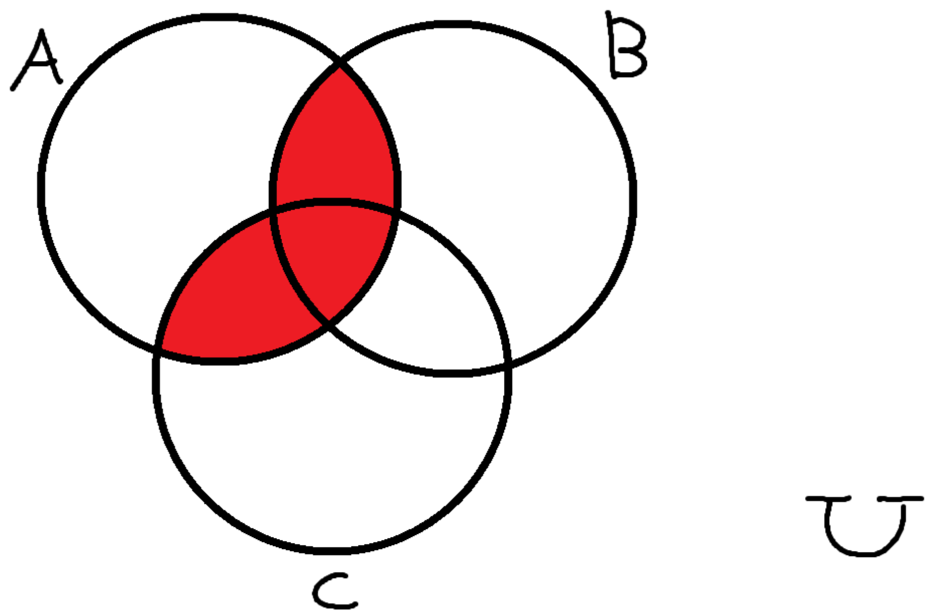
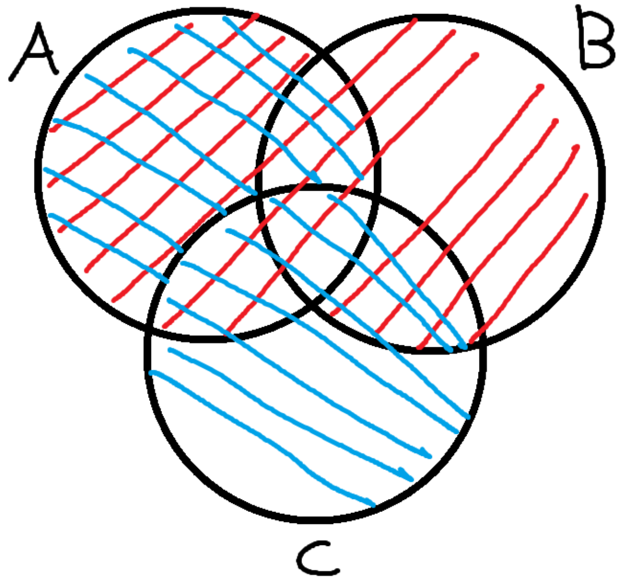
14. $ab + ac = a(b + c) \longrightarrow A \cup (A' \cap B) = A + B$





15. $(a+b)(a+c) = a + bc \longrightarrow (A \cup B) \cap (A \cup C)$



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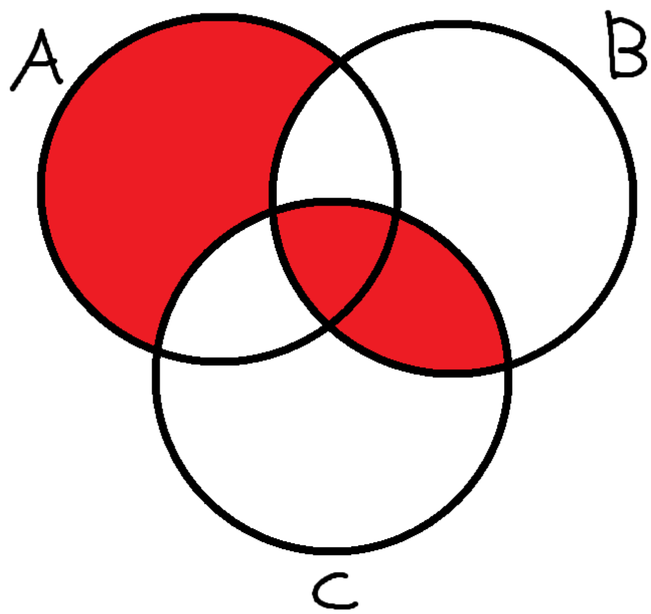

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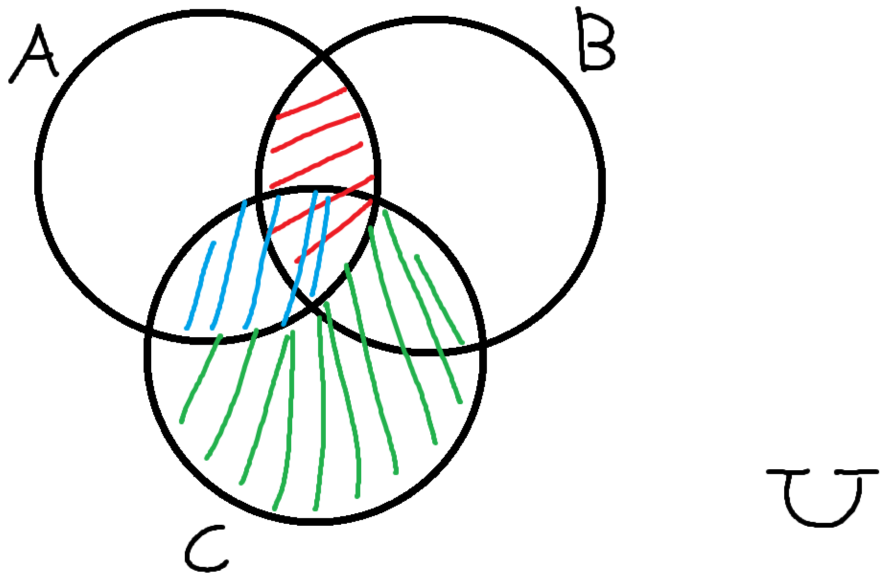
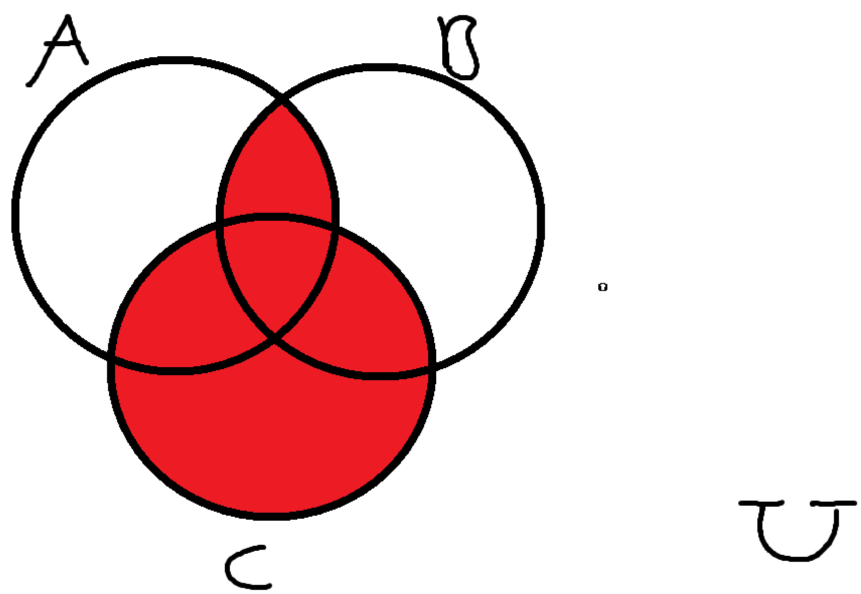
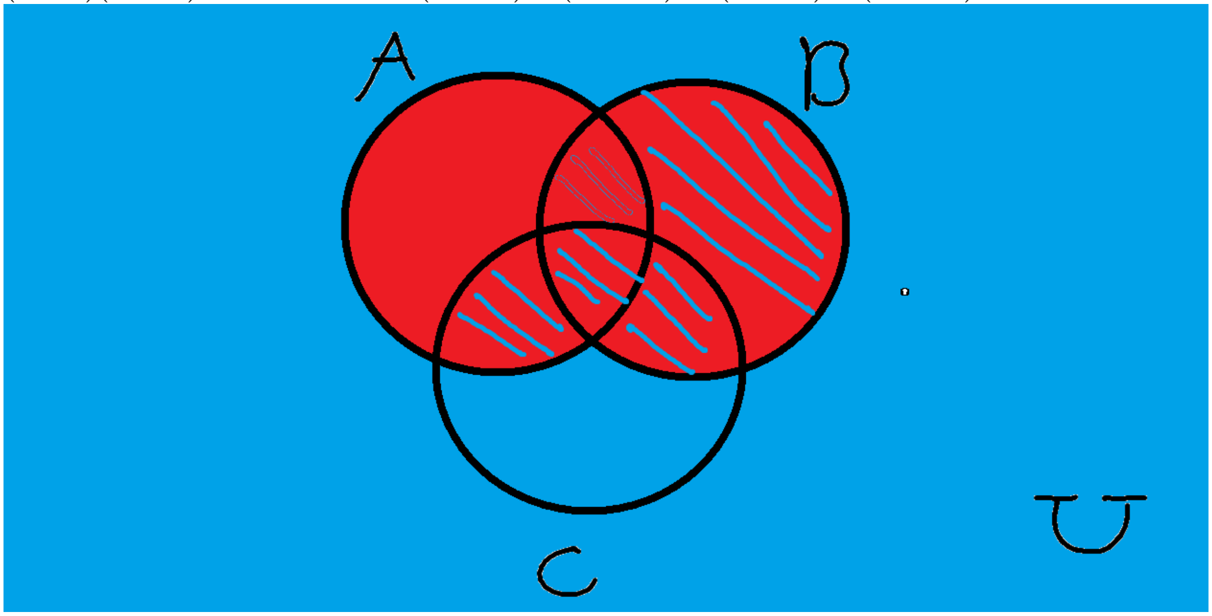
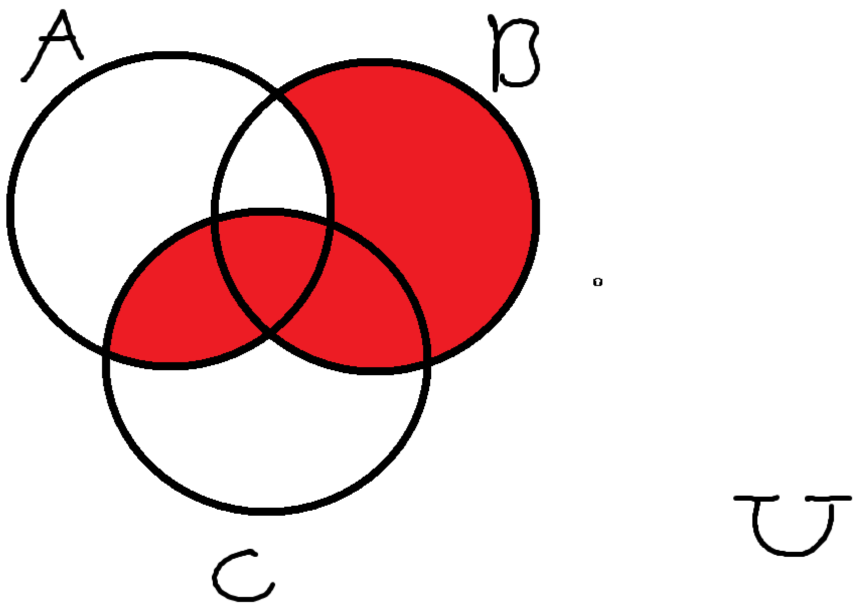
16. $ab + ac + a'c = ab + c \longrightarrow (A \cap B) \cup (A \cap C) \cup (A' \cap C) = (A \cap B) \cup C$



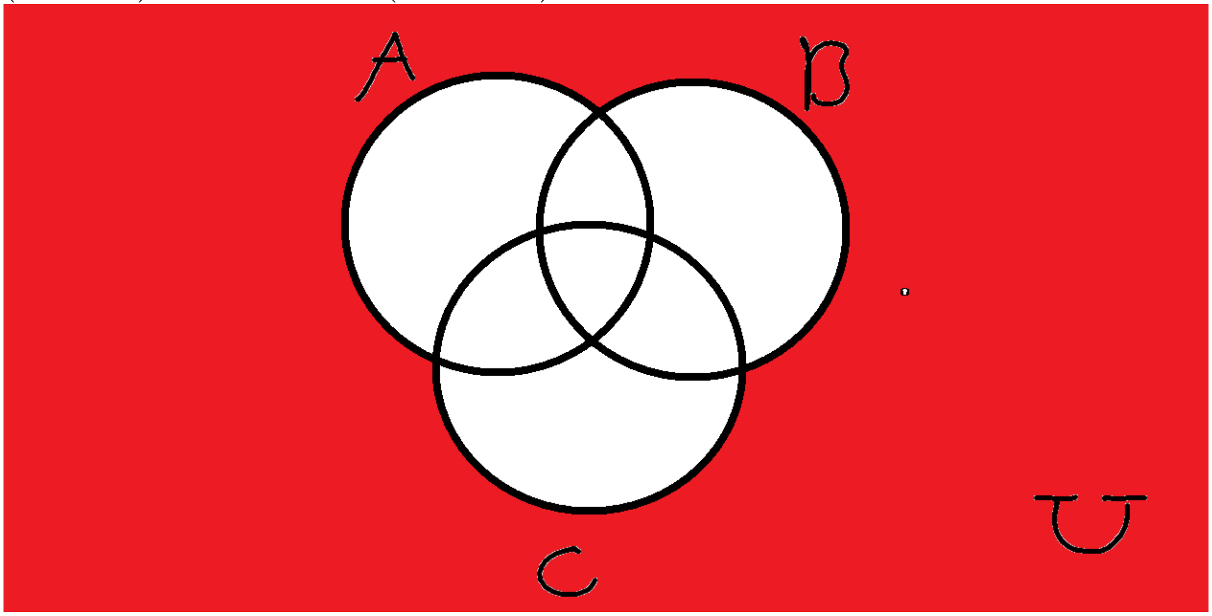


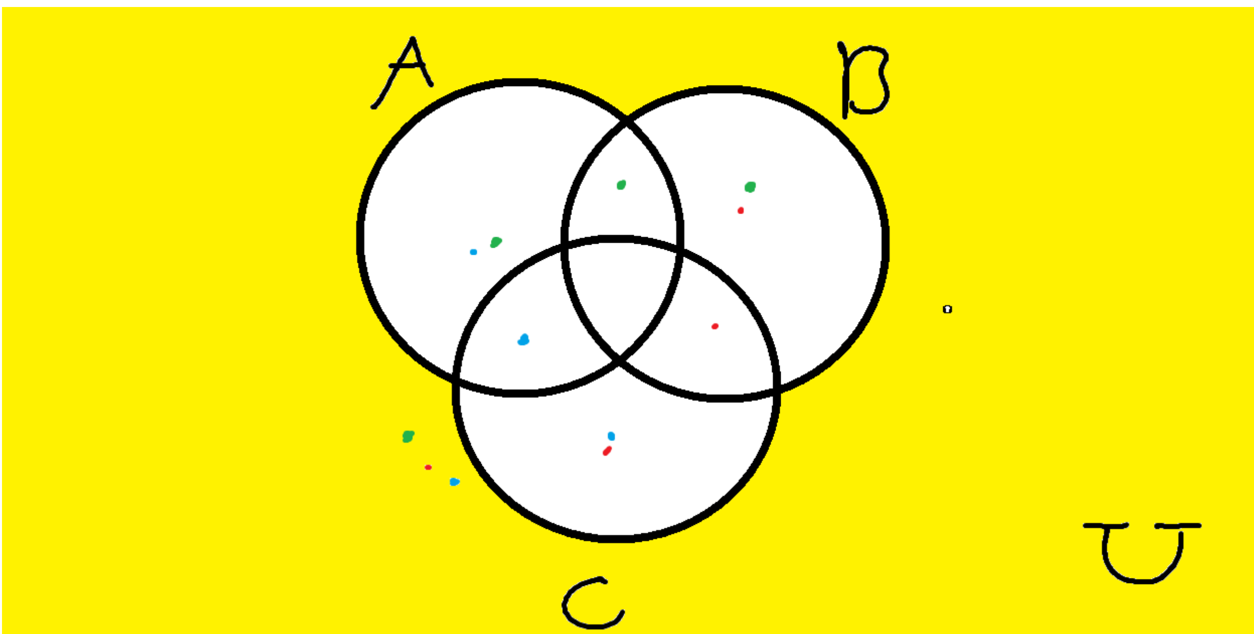
17. $(a+b)(a'+c) = ac + a'b \longrightarrow (A \cup B) \cap (A' \cup C) = (A \cap C) \cup (A' \cap B)$



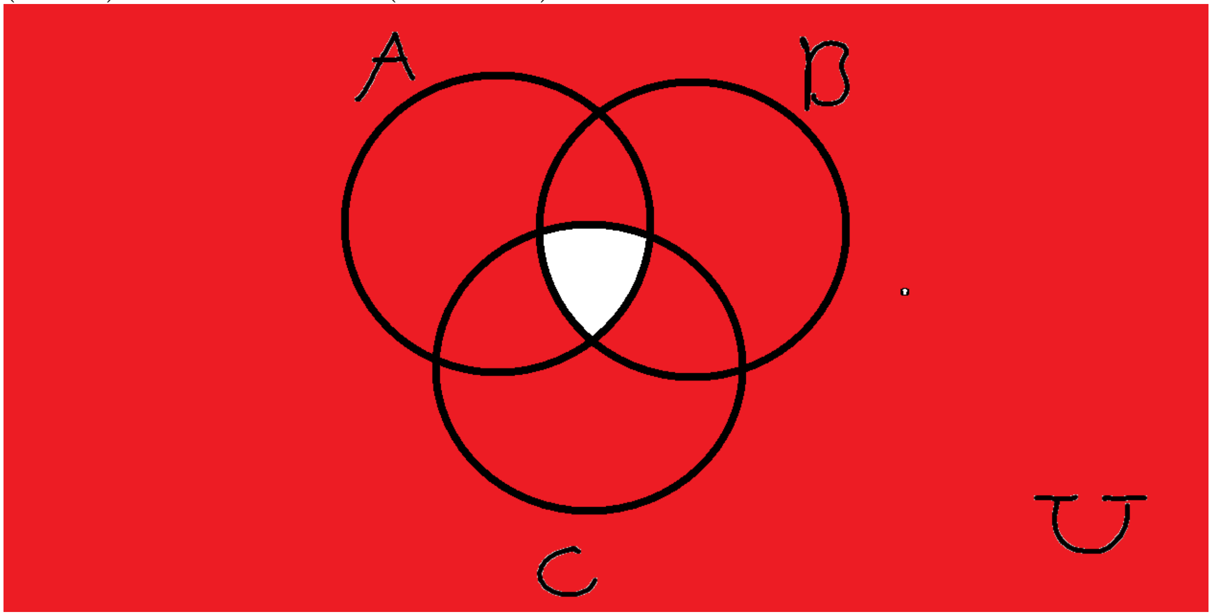


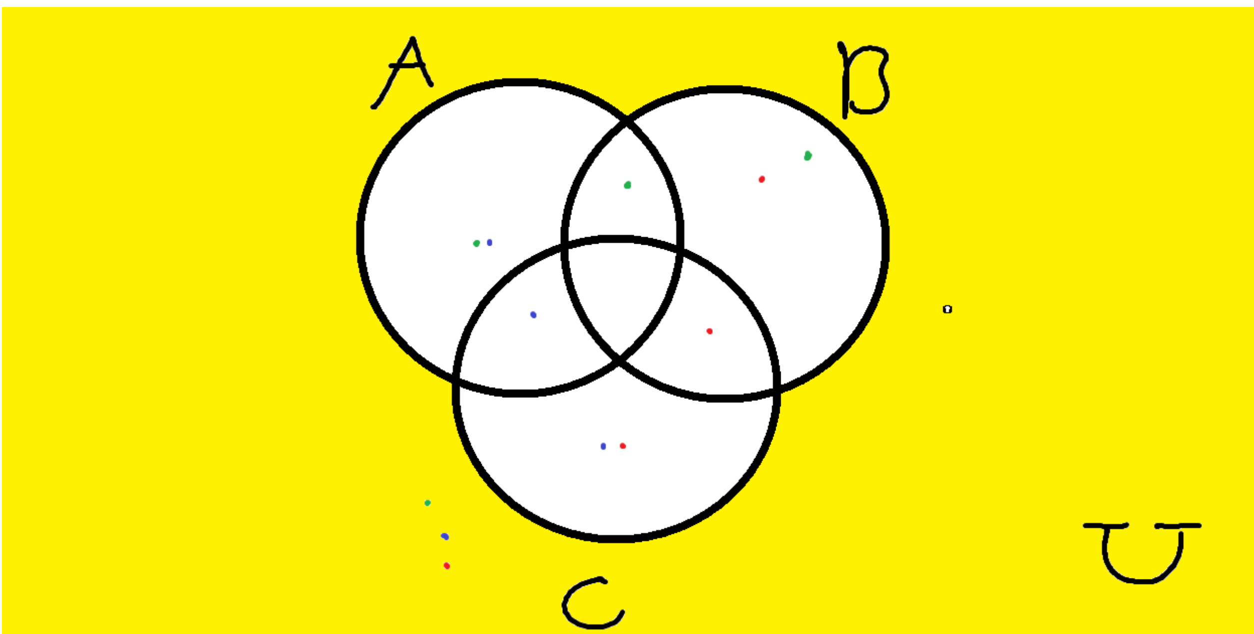
18. $(a+b+c)' = a' \cdot b' \cdot c' \longrightarrow (A \cup B \cup C)' = A' \cap B' \cap C'$





19. $(a \cdot b \cdot c)' = a' + b' + c' \longrightarrow (A \cap B \cap C)' = A' \cup B' \cup C'$





20. $(a')' \longrightarrow (A')'$