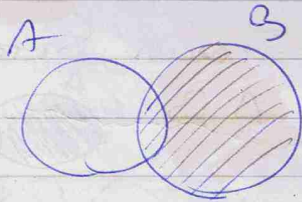Cardinal #

$A = \{A, b, c\}$

$\#_A = 3$

Resta

A   B   A - B

$A = \{a, b, c\}$
$B = \{c, d, e\}$
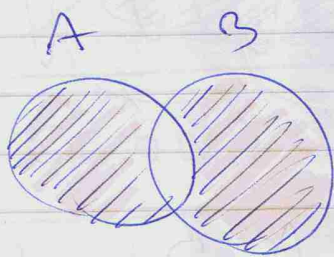
$A - B = \{a, b, \cancel{c}, \cancel{d}, \cancel{e}\}$

$B - A = \{\cancel{a}, \cancel{b}, \cancel{c}, d, e\}$

Diferencia Simétrica

$$A \triangle B$$

$$A = \{a, b, c\}$$

$$B = \{c, d, e, f\}$$

$$A \triangle B \{a, b, e, F\}$$

Complemento

$$\text{co } A' = A^c$$

Unión

$$\text{co } A \cup B$$

Intersección

$$\text{co } A \cap B$$

Resta

$$\text{co } A - B$$

Diferencia Simétrica

$$\text{co } A \triangle B$$

Cardinal

$$\text{co } \#$$

$$\text{co } N^{\underline{o}} \text{ de elementos}$$

Ejercicio 1
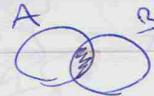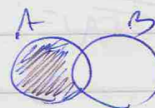
$$U = \{ x/x \quad 1 \leq x \leq 10 \land 3 \leq x \leq 14 \}$$

$$A = \{1, 2, 3\}$$

$$B = \{2, 4, 5, 6\}$$

$$C = \{2, 8, 9, 10\}$$

$$D = \{1, 2, 14\}$$

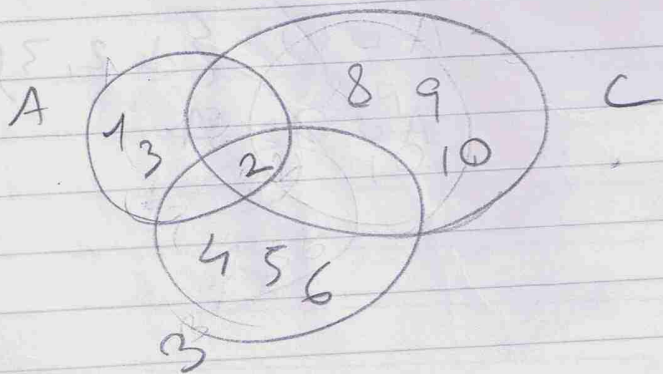1) $(A \cup B) \cap C$,
2) $[(A \cap C) \cup D]$

3) $(A \triangle B) \cap (B \triangle A) =$
4) $A \cup \emptyset$
5) $(A \cup A) \cap A =$
6) $[A - D] \cup B$

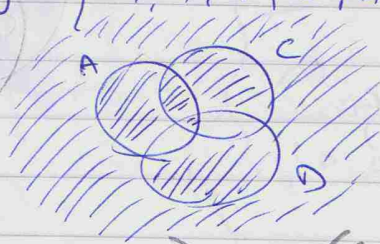① $(\{1,2,3\} \cup \{2,4,5,6\}) \cap \{2,8,9,10\} = \{2\}$

2

$$\left(\left((1,2,3) \cap (2,8,5,10) \right) \cup (1,2,14) \right)'$$

$A \cap C = \{2\}$

$(A \cap C) \cup D = \{12, 14\}$

$\left[(A \cap C) \cup D \right]' = \{3,3,5,6,7,8,5,10,13\}$

3

$$\left((1,2,3) \triangle (2,4,5,6) \right) \cap \left((2,4,5,6) \triangle (1,2,3) \right) =$$
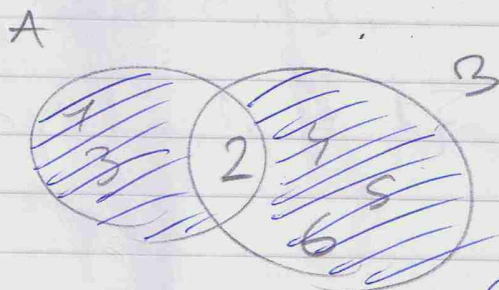
$\{1,3,4,5,6\}$

$B \triangle A \{1,3,4,5,6\}$

$A \triangle B \{1,3,4,5,6\}$

$(A \triangle B) \cap (B \triangle A) = \{1,3,4,5,6\}$
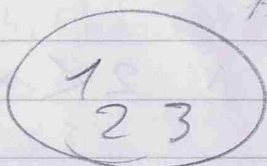
4

$(1,2,3) \cup \emptyset = \{1,2,3\}$
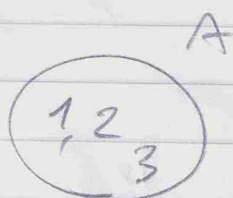
$A \cup \emptyset = \{1,2,3\}$

$A \cup \emptyset = A$

5

$$(1,2,3) \cup (1,2,3) \cap (1,2,3) = \{1, 2, 3$$

$A = \{1, 2, 3\}$

$(A \cup A) \cap A = A$

6

$$(1,2,3) - (1, 2, 14) = \{3, 14\}$$