5- $X = (A' \cap B) \cap (C \cap D') = \emptyset$

$\{5\} \cap \{0\} = \emptyset$

Conjunto dos pares = $\emptyset$ Conjunto vazio

Cardinalidade = 0

6- a) $A \cap B \cap C = \{6, 7\}$

b) $(A \cap B \cap C)' = \{1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15\}$

c) $(A' \cup B) \cup C' = \{1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15\}$

d) $(A \cap B)' \cup (A \cap C) \cup (B \cap C)' = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15\}$

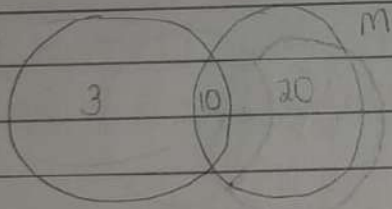
e) $(U - A) - (U - B) - (U - C) = \{11, 12, 13\}$

f) $(A \cap B) \cup (A \Delta C) \cup (B \Delta C) = \{1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13\}$.

g) $(A \cap B \cap C) \cup (A \cap B) \cup (A \cap C) \cup (B \cap C) = \{3, 5, 6, 7, 8, 9, 11, 12, 13\}$

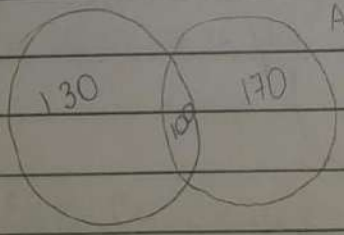
7- $C = \{2, 4, 6\}$

8.



7 estudantes não estudam nem matemática nem física

9.



Inglês = 230

Total da escola = 400

230 alunos estudam inglês. na escola há 400 alunos no total.