Matemática Discreta - Lista 3 - Victor Ramos e Vinícius Ramos

1) a) $B \cap C = \{e\}$
b) $A \cup C = \{a, b, c, d, e, f\}$
c) $\neg C = \{b, c, g, h\}$
d) $A \cap B \cap C = \{\emptyset\}$
e) $B - C = \{c, g\}$
f) $\neg(A \cup B) = \{f, h\}$
g) $A \times B = \{(a,c), (a,e), (a,g), (b,c), (b,e), (b,g), (c,c), (c,e), (c,g), (d,c), (d,e), (d,g)\}$
h) $(A \cup B) \cap (\neg C) = \{b, c, g\}$
i) $A + B = \{(a,A), (b,A), (c,A), (d,A), (c,B), (e,B), (g,B)\}$
j) $B + B = \{(c,B), (e,B), (g,B), (c,B), (e,B), (g,B)\}$

2) a) $A \cup B = \{1, 2, 4, 5, 6, 8, 9\}$
b) $A \cap B = \{4, 5\}$
c) $A \cap C = \{2, 4\}$
d) $A - B = \{2, 6, 8\}$
e) $\neg A = \{0, 1, 3, 7, 9\}$
f) $A \cap (\neg A) = \{\emptyset\}$
g) $\neg(A \cap B) = \{0, 1, 2, 3, 6, 7, 8, 9\}$
h) $C - B = \{2, 3\}$
i) $(C \cap B) \cup (\neg A) = \{0, 1, 3, 4, 7, 9\}$
j) $\neg(B - A) \cap (A - B) = \{2, 6, 8\}$

3) a) U, $A \cup U$
b) $\emptyset$, $A \cap \emptyset$
c) $\emptyset$, $A \times \emptyset$
d) não existe, $A - \emptyset = \emptyset A$

4) a) 384 b) 31

5) a) $109 + 203 + 162 - 25 - 41 - 28 + 5 + 115 = 500$

b) $109 - 25 - 28 + 5 = 61$

c) $109 + 162 - 25 - 41 - 26 - 5 = 172$

d) $25 + 41 + 21 + 5 = 99$

6)