1. Dane so množice $A = \{1, 2, 3\}$, $B = \{2, 3, 4\}$ in $C = \{0, 1, 4, 5\}$. Določi spodnje množice (naštej njihove elemente).

   (a) $(B \setminus A) \cap C$,
   (b) $C + (A \cup C)$,
   (c) $C + (A \cup B)$,
   (d) $A \cup (B \cap C)$,
   (e) $\mathcal{P}(A \cap B) \setminus C$,
   (f) $\mathcal{P}(A \cap C) + \mathcal{P}(B \cap C)$,
   (g) $\mathcal{P}(A \cap C) + \mathcal{P}(A)$.

2. Določi množice:

   (a) $\emptyset \cap \{\emptyset\}$,
   (b) $\{\emptyset\} \cap \{\emptyset\}$,
   (c) $\{\emptyset, \{\emptyset\}\} \setminus \{\emptyset\}$.

3. Ali veljajo naslednje enakosti oz. vsebovanosti z množicami? Dokaži ali pa poišči protiprimer.

   (a) $((A \cap B) \cup (C \cap D))^c = (A^c \cup B^c) \cap (C^c \cup D^c)$,
   (b) $((A \cup B) \cap (A \cup B^c)) \cup ((A^c \cup B) \cap (A^c \cup B^c)) = \mathcal{S}$,
   (c) $(A \cup B) \cap (A \cup B^c) \cap (A^c \cup B) \cap (A^c \cup B^c) = \emptyset$,
   (d) $A \setminus (A \setminus (B \setminus (B \setminus C))) = A \cap B \cap C$,
   (e) $A \setminus (B \cup C) = (A \setminus B) \cap (A \setminus C)$,
   (f) $A \cup (B + C) = (A \cup B) + (A \cup C)$,
   (g) $(A \cap B) \setminus C \subseteq (A \cup C) \cap B$,
   (h) $(A + B) \setminus A = B \setminus A$,
   (i) $(A + B) + (A + C) = A + (B + C)$,
   (j) $A + B \subseteq A + (B + C)$.

4. Ali velja enakost

$$(B \setminus C) \cup (A \cap C) \setminus B = (A \cup B) \cap (C \cup B)?$$

Kaj pa vsebovanost

$$(B \setminus C) \cup (A \cap C) \setminus B \subseteq (A \cup B) \cap (C \cup B)?$$