

Presek in unija

Naloga 1. Dane so množice

$$\mathcal{A} = \{n \in \mathbb{N}; 3^n < 200\},$$

$$\mathcal{B} = \{(-1)^n; n \in \mathbb{N}\},$$

$$\mathcal{C} = \{2n + 3; n \in \mathbb{N} \text{ in } n \leq 5\}.$$

Zapiši, katere elemente vsebujejo množice \mathcal{A} , \mathcal{B} , \mathcal{C} , $\mathcal{A} \cap \mathcal{B}$, $\mathcal{A} \cup \mathcal{C}$, $\mathcal{A} \cap \mathcal{B} \cap \mathcal{C}$ in $(\mathcal{A} \cap \mathcal{B}) \cup (\mathcal{A} \cap \mathcal{C})$.

Naloga 2. Dani sta množici

$$\mathcal{A} = \{x \in \mathbb{Z}; -4 < x \leq k\},$$

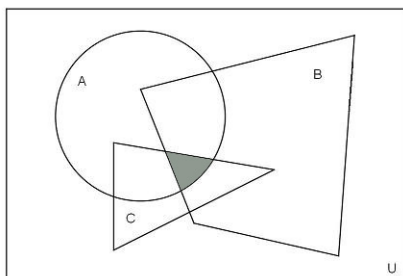
$$\mathcal{B} = \{x \in \mathbb{N}; x \leq 7\}.$$

Določi naravno število k tako, da bo veljalo:

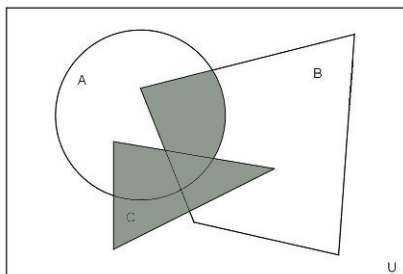
a) $\mathcal{A} \cap \mathcal{B} = \{1\}$

b) $\mathcal{A} \cap \mathcal{B} = \emptyset$

Naloga 3. Iz spodnjega diagrama zapiši osenčeno množico!



Slika 1: primer 1



Slika 2: primer 2

Naloga 1.

$$\mathcal{A} = \{1, 2, 3, 4\}$$

$$\mathcal{B} = \{-1, 1\}$$

$$\mathcal{C} = \{5, 7, 9, 11, 13\}$$

$$\mathcal{A} \cap \mathcal{B} = \{1\}$$

$$\mathcal{A} \cup \mathcal{C} = \{1, 2, 3, 4, 5, 7, 9, 11, 13\}$$

$$\mathcal{A} \cap \mathcal{B} \cap \mathcal{C} = \emptyset$$

$$(\mathcal{A} \cap \mathcal{B}) \cup (\mathcal{A} \cap \mathcal{C}) = \{1\} \cup \emptyset = \{1\}$$

Naloga 2.

a) $k = 1$

b) ni takega naravnega števila k

Naloga 3.

a) $\mathcal{A} \cap \mathcal{B} \cap \mathcal{C}$

b) $(\mathcal{A} \cap \mathcal{B}) \cup \mathcal{C}$