

Nekaj lastnosti operacij z množicami

Za vse množice A, B, C velja:

$$\begin{array}{lll} A \cup \emptyset = A & A \setminus \emptyset = A & A \oplus \emptyset = A \\ A \cap \emptyset = \emptyset & \emptyset \setminus A = \emptyset & \end{array}$$

$$\begin{array}{ll} A \cup A = A & \text{idempotenca unije} \\ A \cap A = A & \text{idempotenca preseka} \end{array}$$

$$\begin{array}{l} A \setminus A = \emptyset \\ A \oplus A = \emptyset \end{array}$$

$$\begin{array}{ll} A \cup B = B \cup A & \text{komutativnost unije} \\ A \cap B = B \cap A & \text{komutativnost preseka} \\ A \oplus B = B \oplus A & \text{komutativnost Boolove vsote} \end{array}$$

$$\begin{array}{ll} A \cup (B \cup C) = (A \cup B) \cup C & \text{asociativnost unije} \\ A \cap (B \cap C) = (A \cap B) \cap C & \text{asociativnost preseka} \\ A \oplus (B \oplus C) = (A \oplus B) \oplus C & \text{asociativnost Boolove vsote} \end{array}$$

$$\begin{array}{ll} A \cup (A \cap B) = A & \text{absorpcija unije glede na presek} \\ A \cap (A \cup B) = A & \text{absorpcija preseka glede na unijo} \end{array}$$

$$\begin{array}{ll} A \cap (B \cup C) = (A \cap B) \cup (A \cap C) & \text{distributivnost preseka glede na } \cup \\ A \cup (B \cap C) = (A \cup B) \cap (A \cup C) & \text{distributivnost unije glede na } \cap \\ A \cap (B \oplus C) = (A \cap B) \oplus (A \cap C) & \text{distributivnost preseka glede na } \oplus \end{array}$$

$$\begin{array}{l} A \oplus B = (A \cup B) \setminus (A \cap B) \\ A \oplus B = (A \setminus B) \cup (B \setminus A) \end{array}$$

$$\begin{array}{ll} A \subseteq A \cup B & A \cap B \subseteq A \\ B \subseteq A \cup B & A \cap B \subseteq B \end{array}$$

$$\begin{array}{l} A \subseteq B \iff A \cup B = B \\ A \subseteq B \iff A \cap B = A \\ A \subseteq B \iff A \setminus B = \emptyset \end{array}$$