

## Multimi de numere

$$A = \{1, 2, 3, 4, 5\} \quad B = \{3, 4, 6\} \quad C = \{5\} \quad D = \{9\}$$

$$A \cup B = \{1, 2, 3, 4, 5, 6\}$$

$$A \cap C = \{5\} = C$$

$$A \cap B = \{3, 4\}$$

$$A \cup C = \{1, 2, 3, 4, 5\} = A$$

$$A \setminus C = \{1, 2\}$$

$$A - C = \{1, 2, 3, 4\}$$

$$B - A = \{6\}$$

$$C - A = \emptyset$$

$$A \setminus D = A$$

$$D - A = D$$

$C \subset A \Leftrightarrow A \supset C$

$$A \cup D = \{1, 2, 3, 4, 5, 9\}$$

$$A \cap D = \emptyset$$

$$\left. \begin{array}{l} A \cap D = \emptyset \Rightarrow \\ A \text{ și } D \text{ sunt multe disjuncte} \end{array} \right\}$$

$$A = \{1, 2, 3, 4\} \quad E = \{3, 4\} \quad C_A E = \{x \mid x \in E, x \notin A\}$$

$$C_E A = \{x \mid x \in A, x \notin E\}$$

$$C_E A = \{1, 2\}$$

$$C_E E = \emptyset$$

$$A = \{1, 2, 3\} \quad B = \{5\} \quad B \times A = \{(5, 1); (5, 2); (5, 3)\}$$

$$A \times B = \{(1, 5); (2, 5); (3, 5)\}$$

$$A \cup B = B \cup A \quad A \cap B = B \cap A \quad A - C \neq C - A$$

$$A \times B \neq B \times A$$

$$A = \left\{ \frac{5}{6}, 0, 1(2), \sqrt{2}, \sqrt{1,44}, -\frac{18}{9} \right\} \quad -\frac{18}{9} = -2$$

$$A \cap \mathbb{N} = \emptyset$$

$$A \cap \mathbb{Q} = \left\{ \frac{5}{6}, 0, 1(2), -\frac{18}{9}; \sqrt{1,44} \right\}$$

$$A \cap \mathbb{Z} = \left\{ -\frac{18}{9} \right\}$$

$$A \cap (\mathbb{R} \setminus \mathbb{Q}) = \{\sqrt{2}\}$$

$$A \cap \mathbb{R} = A$$

$$\sqrt{1,44} = \sqrt{\frac{144}{100}} = \frac{\sqrt{144}}{\sqrt{100}} = \frac{12}{10}$$

$$\sqrt{12} = \sqrt{4 \cdot 3} = \sqrt{4} \cdot \sqrt{3} = 2\sqrt{3}, \sqrt{3} \in \mathbb{R} \setminus \mathbb{Q} \Rightarrow 2\sqrt{3} \in \mathbb{R} \setminus \mathbb{Q}$$