

1. Adott $A = \{x \in \mathbb{N}, x = 2^k, 1 < k \leq 4\}$ es $B = \{y \in \mathbb{N}, y = 3^{k-1}, 3 \leq k < 6\}$
Hatarozzuk meg : $A, B, A \cup B, A \cap B, A \setminus B, (A \setminus B) \cup (B \cap A), (A \cap B) \cap (B \setminus A), (A \setminus B) \cup (B \setminus A)$

2. Legyen $A = \{x \in \mathbb{N}, x \text{ paratlan számjegy}\}$

$$B = \{x \in \mathbb{N}, 2x - 1 \leq 5\}$$

$$C = \{x \in \mathbb{N}, 2x^2 + 1 \leq 19\}$$

Hatarozd meg: a) card A, card B, card C

b) irjuk fel: $A \cup B, A \cap B, A \cap C, A \setminus B, B \setminus C, A \cup B \cup C, A \cap B \cap C, (B \setminus C) \cup (C \setminus B)$

c) abrazold a b pont valamelyik muveletet

3. Adott $A = \{x \in \mathbb{N}, x = 2^a + 2^b, \text{ ahol } a, b \in \{0, 1, 2\}\}$

$$B = \{y \in \mathbb{N}^*, y = x - 1, x \in A\}$$

$$C = \{z \in \mathbb{N}, z = y^c + 1, c \in \{0, 1\}, y \in B\}$$

Hatarozzuk meg: a) A, B, C halmazokat

b) $A \cup B, A \cap B, B \setminus A, A \cap B \cap C, A \cup B \cup C, (A \cap B) \cup (B \cap C), (A \cup B) \cap (B \setminus C), (A \setminus B) \cup (C \setminus A)$

4. Legyen $B = \{x \in \mathbb{N}^*, 2x + a < 10, a \in \mathbb{N}\}$. Hatarozzuk meg $a \in \mathbb{N}$, ugy, hogy

a) card A=0, b) card A=1, c) card A=2, d) card A=3

5. Adott $A = \{x, x \in \mathbb{N}, \text{ es } 2/1x0\}$

$$B = \{x, x \in \mathbb{N}, \text{ es } 5/12x\}$$

Hatarozzuk meg : a) A, B halmazt

b) $A \cup B, A \cap B, A \setminus B, B \setminus A$