



Najdi průnik $A \cap B$, sjednocení $A \cup B$ a rozdíly $A - B$, $B - A$ množin A , B pokud :

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| a) $A = \{1, 3, 5, 7, 9\}$
$B = \{2, 3, 4, 5, 6, 8\}$ | f) $A = \{-10, -7, -4, -3, -2, -1\}$
$B = \{-9, -8, -7, -6, -4, -2\}$ |
| b) $A = \{-1, 0, 2, 3, 5, 7\}$
$B = \{0, 1, 2, 3, 4, 5, 6\}$ | g) $A = \{-6, -4, -2, 0, 1, 3, 5, 7\}$
$B = \mathbb{N}$ |
| c) $A = \{2, 4, 5, 6, 8\}$
$B = \{-3, 0, 2, 3, 4, 5, 6, 7\}$ | h) $A = \mathbb{Z}$
$B = \mathbb{Q}$ |
| d) $A = \{-10, -7, -4, -3, -2, -1\}$
$B = \{-9, -8, -7, -6, -4, -2\}$ | i) $A = \mathbb{Z}$
$B = \langle -2; 5 \rangle$ |
| e) $A = \{-7, -6, -5, -3, -2, 1, 3, 5, 6, 9\}$
$B = \{-9, -8, -6, -4, -1, 0, 2, 3, 6, 8\}$ | j) $A = \{a, d, e, f, i, j, k, m, q, r, w\}$
$B = \{c, d, f, j, k, p, q, r, s, t, y\}$ |



Máme dané množiny $A = \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9\}$, $B = \{1, 4, 6, 7, 10, 14\}$, $C = \{3, 5, 6, 7, 9\}$, $D = \{0, 2, 4, 6, 8\}$. Urči množiny :

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|----------------------|-------------------------------|----------------------------|
| a) $A \cap C$ | e) $(B \cap C) \cap D$ | i) $C - B$ |
| b) $B \cup D$ | f) $A \cap (C \cup D)$ | j) $(B \cup C) - D$ |
| c) $A \cup B$ | g) $A - D$ | k) $D - (B \cap C)$ |
| d) $C \cap D$ | h) $A - C$ | l) $(A - D) \cup C$ |

Řešení



- a)** $A \cap B = \{3, 5\}$
 $A \cup B = \{1, 2, 3, 4, 5, 6, 7, 8, 9\}$
 $A - B = \{1, 7, 9\}$
 $B - A = \{2, 4, 6, 8\}$
- b)** $A \cap B = \{0, 2, 3, 5\}$
 $A \cup B = \{-1, 0, 1, 2, 3, 4, 5, 6, 7\}$
 $A - B = \{-1, 7\}$
 $B - A = \{1, 4, 6\}$
- c)** $A \cap B = \{2, 4, 5, 6\}$
 $A \cup B = \{-3, 0, 2, 3, 4, 5, 6, 7, 8\}$
 $A - B = \{8\}$
 $B - A = \{-3, 0, 3, 7\}$
- d)** $A \cap B = \{-7, -4, -2\}$
 $A \cup B = \{-10, -9, -8, -7, -6, -4, -3, -2, -1\}$
 $A - B = \{-10, -3, -1\}$
 $B - A = \{-9, -8, -6\}$
- e)** $A \cap B = \{-6, 3, 6\}$
 $A \cup B = \left\{ \begin{array}{l} -9, -8, -7, -6, -5, -4, -3, \\ -2, -1, 0, 1, 2, 3, 5, 6, 8, 9 \end{array} \right\}$
 $A - B = \{-7, -5, -3, -2, 1, 5, 9\}$
 $B - A = \{-9, -8, -4, -1, 0, 2, 8\}$
- f)** $A \cap B = \{-7, -4, -2\}$
 $A \cup B = \{-10, -9, -8, -7, -6, -4, -3, -2, -1\}$
 $A - B = \{-10, -3, -1\}$
 $B - A = \{-9, -8, -6\}$
- g)** $A \cap B = \{1, 3, 5, 7\}$
 $A \cup B = \{-6, -4, -2, 0\} \cup \mathbb{N}$
 $A - B = \{-6, -4, -2, 0\}$
 $B - A = \mathbb{N} \setminus \{1, 3, 5, 7\}$
- h)** $A \cap B = \mathbb{Z}$
 $A \cup B = \mathbb{Q}$
 $A - B = \emptyset$
 $B - A = \mathbb{Q} \setminus \mathbb{Z}$
- i)** $A \cap B = \{-2, -1, 0, 1, 2, 3, 4, 5\}$
 $A \cup B = \mathbb{Z} \cup \{-2; 5\}$
 $A - B = \mathbb{Z} \setminus \{-2, -1, 0, 1, 2, 3, 4, 5\}$
 $B - A = \{-2; 5\} \setminus \{-2, -1, 0, 1, 2, 3, 4, 5\}$
- j)** $A \cap B = \{d, f, j, k, q, r\}$
 $A \cup B = \{a, c, d, e, f, i, j, k, m, p, q, r, s, t, w, y\}$
 $A - B = \{a, e, i, m, w\}$
 $B - A = \{c, p, s, t, y\}$



- a)** $\{3, 5, 6, 7, 9\}$ **e)** $\{6\}$ **i)** $\{3, 5, 9\}$
- b)** $\{0, 1, 2, 4, 6, 7, 8, 10, 14\}$ **f)** $\{0, 2, 3, 4, 5, 6, 7, 8, 9\}$ **j)** $\{1, 3, 5, 7, 9, 10, 14\}$
- c)** $\{0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14\}$ **g)** $\{1, 3, 5, 7, 9\}$ **k)** $\{0, 2, 4, 8\}$
- d)** $\{6\}$ **h)** $\{0, 1, 2, 4, 8\}$ **l)** $\{1, 3, 5, 6, 7, 9\}$