

Множества. Операции. Мощность.

Универсальное множество состоит из 26 строчных букв латинского алфавита.
Заданы множества A , B , C и D . Вычислить мощность множеств X и Y .

Задача Dm2.1.

$$\begin{aligned} A &= \{a, b, c, e, g\}, \\ B &= \{b, c, l\}, \\ C &= \{e, f, h, n, u, v\}, \\ D &= \{b, d, f, p, q, u, v\}. \\ X &= (A \cup D) \cap C, \\ Y &= (\overline{A \cap B}) \setminus (C \cup D). \end{aligned}$$

Задача Dm2.2.

$$\begin{aligned} A &= \{a, c, f, k\}, \\ B &= \{a, g, j, k, z\}, \\ C &= \{a, b, d, l, m, q\}, \\ D &= \{j, o, p, t, u\}. \\ X &= (A \cap C) \cup (D \cap B), \\ Y &= (\overline{A \cap B}) \setminus (C \cup D). \end{aligned}$$

Задача Dm2.3.

$$\begin{aligned} A &= \{a, c, f, g, n, t\}, \\ B &= \{c, g, h, m, z\}, \\ C &= \{g, h, t, x, y\}, \\ D &= \{f, g, m, q, r, v, w\}. \\ X &= (A \cap C) \cup B, \\ Y &= (\overline{A \cap B}) \setminus (C \cup D). \end{aligned}$$

Задача Dm2.4.

$$\begin{aligned} A &= \{b, c, j, k, n, q\}, \\ B &= \{c, d, j, t, y\}, \\ C &= \{o, p, q\}, \\ D &= \{a, c, m, p, x, y\}. \\ X &= (A \cup B) \cap C, \\ Y &= (\overline{A \cap D}) \cup (C \setminus B). \end{aligned}$$

Задача Dm2.5.

$$\begin{aligned} A &= \{b, c, d, j, m, n\}, \\ B &= \{b, c, j, o, t\}, \\ C &= \{d, e, p, q, u, v\}, \\ D &= \{a, b, c, x, y\}. \\ X &= (A \cup D) \cap C, \\ Y &= (A \setminus D) \cup (\overline{C \setminus B}). \end{aligned}$$

Задача Dm2.6.

$$\begin{aligned} A &= \{b, h, j, k, r\}, \\ B &= \{g, h, r, u\}, \\ C &= \{l, m, s\}, \\ D &= \{a, g, j, q, v, w\}. \\ X &= (A \cap C) \cup B, \\ Y &= (\overline{A \cap D}) \cup (C \setminus B). \end{aligned}$$

Задача Dm2.7.

$$\begin{aligned} A &= \{a, c, h, k, m, t\}, \\ B &= \{c, i, j, m, s\}, \\ C &= \{k, l, x\}, \\ D &= \{i, j, q, r, s, v, w\}. \\ X &= (A \cap B) \cup (D \cap C), \\ Y &= (\overline{A \cap B}) \setminus (C \cup D). \end{aligned}$$

Задача Dm2.8.

$$\begin{aligned} A &= \{a, b, j, k, l, w\}, \\ B &= \{a, b, l, v\}, \\ C &= \{j, k, m, z\}, \\ D &= \{a, i, j, z\}. \\ X &= (A \cup B) \cap D, \\ Y &= (\overline{A \cap B}) \setminus (C \cup D). \end{aligned}$$

Задача Dm2.9.

$$\begin{aligned} A &= \{b, c, d, e, o\}, \\ B &= \{a, b, e, o, r\}, \\ C &= \{d, e, s, y, z\}, \\ D &= \{a, b, c, s, t, x, y\}. \\ X &= (A \cup B) \cap D, \\ Y &= (\overline{A \cap D}) \cup (C \setminus B). \end{aligned}$$

Задача Dm2.10.

$$\begin{aligned} A &= \{b, c, e, o, r\}, \\ B &= \{c, g, j, k, m, v\}, \\ C &= \{g, h, p, q, w\}, \\ D &= \{b, d, j, n, q, r, v, w\}. \\ X &= (A \cap C) \cup (D \cap B), \\ Y &= (A \setminus D) \cup (\overline{C \setminus B}). \end{aligned}$$

Задача Dm2.11.

$$\begin{aligned} A &= \{a, b, c, e, n, q\}, \\ B &= \{c, d, e, o, q, w\}, \\ C &= \{o, p, t\}, \\ D &= \{a, c, m, p, s, t, x, y\}. \\ X &= (A \cup B) \cap C, \\ Y &= (\overline{A \cap D}) \cup (C \setminus B). \end{aligned}$$

Задача Dm2.12.

$$\begin{aligned} A &= \{a, g, h, i, p, y\}, \\ B &= \{g, h, q\}, \\ C &= \{i, j, x\}, \\ D &= \{g, h, o, u, v, z\}. \\ X &= (A \cap C) \cup B, \\ Y &= (\overline{A \cap B}) \setminus (C \cup D). \end{aligned}$$

Задача Dm2.13.

$$\begin{aligned} A &= \{a, b, d, k, o, r\}, \\ B &= \{b, c, d, l, s, x\}, \\ C &= \{o, p, v, z\}, \\ D &= \{c, n, p, q, u, v\}. \\ X &= (A \cup B) \cap C, \\ Y &= (\overline{A \cap B}) \setminus (C \cup D). \end{aligned}$$

Задача Dm2.14.

$$\begin{aligned} A &= \{b, d, g, m, r, u\}, \\ B &= \{d, h, i, n, t\}, \\ C &= \{n, o\}, \\ D &= \{a, h, l, r, s, t, w, x\}. \\ X &= (A \setminus C) \cap \overline{B}, \\ Y &= (\overline{A \cap D}) \cup (C \setminus B). \end{aligned}$$

Задача Dm2.15.

$$\begin{aligned} A &= \{b, e, i, n, y\}, \\ B &= \{e, f, o, w\}, \\ C &= \{j, k\}, \\ D &= \{a, e, h, m, s, t, x, y\}. \\ X &= (A \setminus B) \cap (\overline{C \cap D}), \\ Y &= (\overline{A \cap D}) \cup (C \setminus B). \end{aligned}$$

Задача Dm2.16.

$$\begin{aligned}
A &= \{b, f, k, m\}, \\
B &= \{d, e, k, o, u\}, \\
C &= \{c, d, s, u, v\}, \\
D &= \{a, d, e, y, z\}. \\
X &= (A \setminus B) \cap (C \cap D), \\
Y &= (\overline{A} \cap D) \cup (C \setminus B).
\end{aligned}$$

Задача Dm2.19.

$$\begin{aligned}
A &= \{a, i, k, l, p, y\}, \\
B &= \{g, h, l, t, v\}, \\
C &= \{i, j\}, \\
D &= \{g, h, o, z\}. \\
X &= (A \cap C) \cup B, \\
Y &= (\overline{A} \cap \overline{B}) \setminus (C \cup D).
\end{aligned}$$

Задача Dm2.22.

$$\begin{aligned}
A &= \{h, j, l, x\}, \\
B &= \{b, c, l, t, v\}, \\
C &= \{g, h, v\}, \\
D &= \{b, g, i, z\}. \\
X &= (A \cup D) \cap C, \\
Y &= (A \cap \overline{B}) \cup (C \setminus D).
\end{aligned}$$

Задача Dm2.25.

$$\begin{aligned}
A &= \{b, f, k, l, r\}, \\
B &= \{f, g, p, w\}, \\
C &= \{m, n\}, \\
D &= \{a, f, k, q, t, u, y, z\}. \\
X &= (A \cap B) \cup C, \\
Y &= (\overline{A} \cap D) \cup (C \setminus B).
\end{aligned}$$

Задача Dm2.17.

$$\begin{aligned}
A &= \{b, k, m, p\}, \\
B &= \{c, d, k, o, u, v\}, \\
C &= \{n, o, r\}, \\
D &= \{a, c, l, o, y, z\}. \\
X &= (A \cup B) \cap C, \\
Y &= (\overline{A} \cap D) \cup (C \setminus B).
\end{aligned}$$

Задача Dm2.20.

$$\begin{aligned}
A &= \{f, j, k\}, \\
B &= \{a, b, k, p, u, z\}, \\
C &= \{i, j, q, u\}, \\
D &= \{a, i, j, y, z\}. \\
X &= (A \cup B) \cap D, \\
Y &= (A \cap \overline{B}) \cup (C \setminus D).
\end{aligned}$$

Задача Dm2.23.

$$\begin{aligned}
A &= \{c, l, m, o, y\}, \\
B &= \{i, j, m, r, w\}, \\
C &= \{b, c, y, z\}, \\
D &= \{b, i, k\}. \\
X &= (A \cap B) \cup (D \cap C), \\
Y &= (A \cap \overline{B}) \cup (C \setminus D).
\end{aligned}$$

Задача Dm2.26.

$$\begin{aligned}
A &= \{b, g, j, m, n\}, \\
B &= \{c, d, n, t, x\}, \\
C &= \{h, i, w\}, \\
D &= \{a, c, f, i\}. \\
X &= (A \cup B) \cap C, \\
Y &= (\overline{A} \cap D) \cup (C \setminus B).
\end{aligned}$$

Задача Dm2.18.

$$\begin{aligned}
A &= \{b, c, d, g, k, m\}, \\
B &= \{b, c, d, n, r\}, \\
C &= \{l, m, n, t\}, \\
D &= \{a, b, j, l, r, s, w, x\}. \\
X &= (A \cup D) \cap C, \\
Y &= (\overline{A} \cap D) \cup (C \setminus B).
\end{aligned}$$

Задача Dm2.21.

$$\begin{aligned}
A &= \{a, b, h, j, l\}, \\
B &= \{a, b, c, k, p\}, \\
C &= \{i, j, r, t\}, \\
D &= \{a, b, g, i, o, p, t, u\}. \\
X &= (A \cup D) \cap C, \\
Y &= (\overline{A} \cap D) \cup (C \setminus B).
\end{aligned}$$

Задача Dm2.24.

$$\begin{aligned}
A &= \{b, g, m, n\}, \\
B &= \{g, h, n, u, x\}, \\
C &= \{h, i, t\}, \\
D &= \{a, f, g, m\}. \\
X &= (A \cap C) \cup B, \\
Y &= (\overline{A} \cap D) \cup (C \setminus B).
\end{aligned}$$

Задача Dm2.27.

$$\begin{aligned}
A &= \{a, c, h, i, m, w\}, \\
B &= \{a, e, f, k, q\}, \\
C &= \{j, k, v\}, \\
D &= \{b, e, g, l, o, p, t, u\}. \\
X &= (A \setminus B) \cap (\overline{C} \cap D), \\
Y &= (A \setminus D) \cup (\overline{C} \setminus \overline{B}).
\end{aligned}$$