

## 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 2.1.

Грачёв

Дмитрий Андреевич

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

### Задача 2.2.

Коломиец

Ярослав

$$\begin{aligned}A &= \{e, l, n, o\}, \\B &= \{j, k, n, q, x\}, \\C &= \{d, e, z\}, \\D &= \{d, j, n\}. \\X &= (A \cap C) \cup (D \cap B), \\Y &= (A \cap \overline{B}) \cup (C \setminus D).\end{aligned}$$

### Задача 2.3.

Лапташкин

Григорий

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

### Задача 2.4.

Майков

Дмитрий

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

### Задача 2.5.

Оборин

Дмитрий Андреевич

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

### Задача 2.6.

Осокина Майя

Дмитриевна

$$\begin{aligned}A &= \{a, b, e, t, s, v\}, \\B &= \{e, f, g, n, o, u\}, \\C &= \{n, o, t\}, \\D &= \{a, f, l, r, s, t, x, y\}. \\X &= (A \cap B) \cup C, \\Y &= (\overline{A \cap D}) \cup (C \setminus B).\end{aligned}$$

### Задача 2.7.

Переверзев

Михаил Ильич

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

### Задача 2.8.

Ратников

Матвей

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

### Задача 2.9.

Семенякина

Елизавета

$$\begin{aligned}A &= \{a, j, n, v\}, \\B &= \{d, e, n, x\}, \\C &= \{j, k\}, \\D &= \{d, i, t\}. \\X &= (A \setminus B) \cap (C \cap D), \\Y &= (\overline{A \cap B}) \setminus (C \cup D).\end{aligned}$$

### Задача 2.10.

Снегирев Иван

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

### Задача 2.11.

Толужкин

Ростислав

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

### Задача 2.12.

Турчанинов

Никита

$$\begin{aligned}A &= \{a, l, r, v\}, \\B &= \{a, f, g, k, x\}, \\C &= \{l, t\}, \\D &= \{f, k, o, p, q, t, u\}. \\X &= (A \cap B) \cup C, \\Y &= (\overline{A \cap B}) \setminus (C \cup D).\end{aligned}$$

**Задача 2.13.** Чистяков*Евгений Артемович*

$$A = \{b, c, g, i, l\},$$

$$B = \{b, c, i, m, v\},$$

$$C = \{h, i, k, s, t, u\},$$

$$D = \{a, b, f, h, q, r, v, w\}.$$

$$X = (A \cup D) \cap C,$$

$$Y = (\overline{A} \cap D) \cup (C \setminus B).$$

**Задача 2.14.**

Чугреев

*Никита Сергеевич*

$$A = \{c, h, i, j\},$$

$$B = \{b, c, i, r, s\},$$

$$C = \{j, k, t\},$$

$$D = \{b, g, i, w, x\}.$$

$$X = (A \cup D) \cap C,$$

$$Y = (A \setminus D) \cup (\overline{C} \setminus \overline{B}).$$

**Задача 2.15.**

$$A = \{a, b, c, j, k, u\},$$

$$B = \{j, k, m, t, v\},$$

$$C = \{l, m, n, w\},$$

$$D = \{b, j, t, x, y\}.$$

$$X = (A \cap C) \cup (D \cap B),$$

$$Y = (A \setminus D) \cup (\overline{C} \setminus \overline{B}).$$

**Задача 2.16.**

$$A = \{b, c, k, m, o\},$$

$$B = \{e, h, i, m, v, w\},$$

$$C = \{b, c, l, m, r\},$$

$$D = \{b, h, j\}.$$

$$X = (A \setminus C) \cap \overline{B},$$

$$Y = (A \cap \overline{B}) \cup (C \setminus D).$$

**Задача 2.17.**

$$A = \{a, b, g, j, n, x\},$$

$$B = \{b, g, h, l, q\},$$

$$C = \{g, h, x\},$$

$$D = \{f, g, m, p, q, u, v\}.$$

$$X = (A \cap C) \cup B,$$

$$Y = (\overline{A} \cap \overline{B}) \setminus (C \cup D).$$

**Задача 2.18.**

$$A = \{c, f, g, j, k, l\},$$

$$B = \{f, g, k, p, u\},$$

$$C = \{h, i, m, v, z\},$$

$$D = \{b, e, f, k, y, z\}.$$

$$X = (A \cap B) \cup C,$$

$$Y = (A \setminus D) \cup (\overline{C} \setminus \overline{B}).$$

**Задача 2.19.**

$$A = \{c, e, h, k, q\},$$

$$B = \{e, h, i, k, o\},$$

$$C = \{b, c, r, s, t\},$$

$$D = \{b, h, j, s, t, x, y\}.$$

$$X = (A \setminus C) \cap \overline{B},$$

$$Y = (A \cap \overline{B}) \cup (C \setminus D).$$

**Задача 2.20.**

$$A = \{b, d, j, o, t, x\},$$

$$B = \{i, j, s, t, x\},$$

$$C = \{p, q\},$$

$$D = \{a, i, n, w, x, y\}.$$

$$X = (A \cap B) \cup (D \cap C),$$

$$Y = (\overline{A} \cap D) \cup (C \setminus B).$$

**Задача 2.21.**

$$A = \{b, c, f, h, k\},$$

$$B = \{d, e, j, k, u\},$$

$$C = \{d, e, m, n, p, q\},$$

$$D = \{a, b, d, e, y, z\}.$$

$$X = (A \setminus B) \cap (C \cap D),$$

$$Y = (A \setminus D) \cup (\overline{C} \setminus \overline{B}).$$