

## Множества. Операции. Мощность.

Универсальное множество состоит из 26 строчных букв латинского алфавита.

Заданы множества  $A$ ,  $B$ ,  $C$  и  $D$ . Вычислить мощность множеств  $X$  и  $Y$ .

<p><b>Задача 4.1</b></p> $A = \{a, c, g, l, o\},$ $B = \{c, d, g, q, s\},$ $C = \{m, n, o, v\},$ $D = \{b, c, k, n, u, v, z\}.$ $X = (A \cup B) \cap C,$ $Y = (A \setminus D) \cup (\overline{C \setminus B}).$ <p style="font-size: small; margin-top: 5px;">4.1</p>	<p><b>Задача 4.2</b></p> $A = \{b, c, e, i, m\},$ $B = \{d, e, o, v\},$ $C = \{k, l, z\},$ $D = \{b, d, h, l, s, t, x, y\}.$ $X = (A \setminus B) \cap (C \cap D),$ $Y = (A \setminus D) \cup (\overline{C \setminus B}).$ <p style="font-size: small; margin-top: 5px;">4.1</p>	<p><b>Задача 4.3</b></p> $A = \{a, c, h, k, l\},$ $B = \{g, h, l, v\},$ $C = \{a, d, q, r, s\},$ $D = \{g, z\}.$ $X = (A \cap C) \cup B,$ $Y = (A \cap \overline{B}) \cup (C \setminus D).$ <p style="font-size: small; margin-top: 5px;">4.1</p>
<p><b>Задача 4.4</b></p> $A = \{a, b, d, e, g\},$ $B = \{c, d, g, q, u\},$ $C = \{c, d, f, i, j\},$ $D = \{a, c, d, u, v, z\}.$ $X = (A \cup B) \cap C,$ $Y = (\overline{A \cap D}) \cup (C \setminus B).$ <p style="font-size: small; margin-top: 5px;">4.1</p>	<p><b>Задача 4.5</b></p> $A = \{a, e, j, n\},$ $B = \{e, f, n, u, x\},$ $C = \{d, e, j, k, o, p\},$ $D = \{d, e, i\}.$ $X = (A \setminus B) \cap (\overline{C} \cap D),$ $Y = (A \cap \overline{B}) \cup (C \setminus D).$ <p style="font-size: small; margin-top: 5px;">4.1</p>	<p><b>Задача 4.6</b></p> $A = \{a, b, f, g, h\},$ $B = \{a, b, h, r\},$ $C = \{b, c, g, i, m, n\},$ $D = \{a, v, w\}.$ $X = (A \cup B) \cap D,$ $Y = (\overline{A \cap D}) \cup (C \setminus B).$ <p style="font-size: small; margin-top: 5px;">4.1</p>
<p><b>Задача 4.7</b></p> $A = \{a, b, f, g, n\},$ $B = \{a, g, h, i, k, u\},$ $C = \{g, h, m, o, q, r\},$ $D = \{a, e, h, m, o, p, t, u\}.$ $X = (A \setminus C) \cap \overline{B},$ $Y = (\overline{A \cap D}) \cup (C \setminus B).$ <p style="font-size: small; margin-top: 5px;">4.1</p>	<p><b>Задача 4.8</b></p> $A = \{a, b, d, h, i\},$ $B = \{e, f, i, s, v\},$ $C = \{d, e, k, l, n, o\},$ $D = \{c, e, h, w, x\}.$ $X = (A \setminus B) \cap (\overline{C} \cap D),$ $Y = (\overline{A \cap B}) \setminus (C \cup D).$ <p style="font-size: small; margin-top: 5px;">4.1</p>	<p><b>Задача 4.9</b></p> $A = \{a, b, c, f, h, i\},$ $B = \{c, d, h, r, u\},$ $C = \{d, e, g, k, l\},$ $D = \{a, b, c, e, v, w\}.$ $X = (A \cup B) \cap C,$ $Y = (\overline{A \cap D}) \cup (C \setminus B).$ <p style="font-size: small; margin-top: 5px;">4.1</p>
<p><b>Задача 4.10</b></p> $A = \{a, c, h, j, n\},$ $B = \{e, f, n, q, x\},$ $C = \{c, d, m, v, x, y\},$ $D = \{b, e, g\}.$ $X = (A \setminus B) \cap (\overline{C} \cap D),$ $Y = (\overline{A \cap B}) \setminus (C \cup D).$ <p style="font-size: small; margin-top: 5px;">4.1</p>	<p><b>Задача 4.11</b></p> $A = \{b, c, h, i, k\},$ $B = \{a, b, h, k, r\},$ $C = \{c, d, l, m, q, r\},$ $D = \{a, b, v, w\}.$ $X = (A \cup B) \cap D,$ $Y = (\overline{A \cap D}) \cup (C \setminus B).$ <p style="font-size: small; margin-top: 5px;">4.1</p>	<p><b>Задача 4.12</b></p> $A = \{a, f, k, l, o\},$ $B = \{a, e, f, k, u\},$ $C = \{e, f, r, z\},$ $D = \{e, j, o, p, t, u\}.$ $X = (A \setminus B) \cap (\overline{C} \cap D),$ $Y = (A \cap \overline{B}) \cup (C \setminus D).$ <p style="font-size: small; margin-top: 5px;">4.1</p>
<p><b>Задача 4.13</b></p> $A = \{a, d, e, g, i, m\},$ $B = \{b, c, i, s, x\},$ $C = \{e, f, k, r, s\},$ $D = \{b, d, f, w, x\}.$ $X = (A \cup D) \cap C,$ $Y = (\overline{A \cap B}) \setminus (C \cup D).$ <p style="font-size: small; margin-top: 5px;">4.1</p>	<p><b>Задача 4.14</b></p> $A = \{a, h, k, n, p\},$ $B = \{b, c, h, r, y\},$ $C = \{n, o\},$ $D = \{b, m, o, v, w\}.$ $X = (A \cup D) \cap C,$ $Y = (\overline{A \cap B}) \setminus (C \cup D).$ <p style="font-size: small; margin-top: 5px;">4.1</p>	<p><b>Задача 4.15</b></p> $A = \{b, c, i, m, o, t\},$ $B = \{b, g, h, l, v\},$ $C = \{o, p\},$ $D = \{b, g, l, p, q, s, u, v\}.$ $X = (A \cap C) \cup B,$ $Y = (A \setminus D) \cup (\overline{C \setminus B}).$ <p style="font-size: small; margin-top: 5px;">4.1</p>

<p><b>Задача 4.16</b>  <math>A = \{b, f, g, m, n, p\},</math>  <math>B = \{a, b, g, q, s, z\},</math>  <math>C = \{n, o, t\},</math>  <math>D = \{a, l, m, u, v, z\}.</math>  <math>X = (A \cup B) \cap D,</math>  <math>Y = (\overline{A} \cap D) \cup (C \setminus B).</math></p> <p>4.1</p>	<p><b>Задача 4.17</b>  <math>A = \{c, d, h, k, q\},</math>  <math>B = \{d, i, j, n, s\},</math>  <math>C = \{j, k, y\},</math>  <math>D = \{b, g, i, p, r, s, w, x\}.</math>  <math>X = (A \cap B) \cup (D \cap C),</math>  <math>Y = (A \setminus D) \cup (\overline{C} \setminus \overline{B}).</math></p> <p>4.1</p>	<p><b>Задача 4.18</b>  <math>A = \{a, b, h, j, q, r\},</math>  <math>B = \{a, g, h, k, r\},</math>  <math>C = \{k, l, y\},</math>  <math>D = \{a, g, i, o, p, t, u\}.</math>  <math>X = (A \cap C) \cup B,</math>  <math>Y = (\overline{A} \cap D) \cup (C \setminus B).</math></p> <p>4.1</p>
<p><b>Задача 4.19</b>  <math>A = \{a, b, c, e, s\},</math>  <math>B = \{a, b, c, f, m, y\},</math>  <math>C = \{c, d, g, k, l, t\},</math>  <math>D = \{a, b, q, r, v, w\}.</math>  <math>X = (A \cup B) \cap D,</math>  <math>Y = (A \setminus D) \cup (\overline{C} \setminus \overline{B}).</math></p> <p>4.1</p>	<p><b>Задача 4.20</b>  <math>A = \{d, i, o, s, t\},</math>  <math>B = \{d, j, k, n, x\},</math>  <math>C = \{h, i\},</math>  <math>D = \{h, j, r, s, w, x\}.</math>  <math>X = (A \cap C) \cup (D \cap B),</math>  <math>Y = (A \cap \overline{B}) \cup (C \setminus D).</math></p> <p>4.1</p>	<p><b>Задача 4.21</b>  <math>A = \{b, e, h, l, u\},</math>  <math>B = \{d, e, j, o, v\},</math>  <math>C = \{g, h, n, v, w\},</math>  <math>D = \{d, g, k, s, t, x, y\}.</math>  <math>X = (A \setminus B) \cap (C \cap D),</math>  <math>Y = (A \cap \overline{B}) \cup (C \setminus D).</math></p> <p>4.1</p>
<p><b>Задача 4.22</b>  <math>A = \{b, f, g, l, v\},</math>  <math>B = \{g, h, j, k, q, z\},</math>  <math>C = \{c, d, n, o, r, x\},</math>  <math>D = \{a, j, k, u, v, z\}.</math>  <math>X = (A \cap C) \cup (D \cap B),</math>  <math>Y = (\overline{A} \cap D) \cup (C \setminus B).</math></p> <p>4.1</p>	<p><b>Задача 4.23</b>  <math>A = \{a, d, l, m, u, w\},</math>  <math>B = \{i, j, m, p, w, x\},</math>  <math>C = \{l, m, y\},</math>  <math>D = \{i, k, t\}.</math>  <math>X = (A \cap B) \cup (D \cap C),</math>  <math>Y = (\overline{A} \cap \overline{B}) \setminus (C \cup D).</math></p> <p>4.1</p>	<p><b>Задача 4.24</b>  <math>A = \{a, c, d, j, x\},</math>  <math>B = \{c, d, k, m\},</math>  <math>C = \{a, n, p, q, y\},</math>  <math>D = \{c, q, r, v, w\}.</math>  <math>X = (A \cup B) \cap C,</math>  <math>Y = (A \cap \overline{B}) \cup (C \setminus D).</math></p> <p>4.1</p>
<p><b>Задача 4.25</b>  <math>A = \{b, f, m, o, s, y\},</math>  <math>B = \{d, e, m, u, w, z\},</math>  <math>C = \{p, q, y\},</math>  <math>D = \{a, d, n, r\}.</math>  <math>X = (A \setminus B) \cap (C \cap D),</math>  <math>Y = (\overline{A} \cap D) \cup (C \setminus B).</math></p> <p>4.1</p>	<p><b>Задача 4.26</b>  <math>A = \{a, i, o, s, z\},</math>  <math>B = \{a, d, e, k, x\},</math>  <math>C = \{n, o\},</math>  <math>D = \{d, n, o, p, r, t, u\}.</math>  <math>X = (A \setminus B) \cap (C \cap D),</math>  <math>Y = (A \cap \overline{B}) \cup (C \setminus D).</math></p> <p>4.1</p>	<p><b>Задача 4.27</b>  <math>A = \{b, c, d, l, m\},</math>  <math>B = \{d, j, k, n, o\},</math>  <math>C = \{d, e, u, v, y\},</math>  <math>D = \{a, b, j, k, r, s, w, x\}.</math>  <math>X = (A \cap C) \cup (D \cap B),</math>  <math>Y = (A \setminus D) \cup (\overline{C} \setminus \overline{B}).</math></p> <p>4.1</p>
<p><b>Задача 4.28</b>  <math>A = \{a, e, j, s\},</math>  <math>B = \{e, i, j, k, o, u\},</math>  <math>C = \{i, j, t, y, z\},</math>  <math>D = \{i, r, s, t, x, y\}.</math>  <math>X = (A \cap B) \cup (D \cap C),</math>  <math>Y = (A \cap \overline{B}) \cup (C \setminus D).</math></p> <p>4.1</p>	<p><b>Задача 4.29</b>  <math>A = \{a, g, h, i, o\},</math>  <math>B = \{a, b, o, p, y\},</math>  <math>C = \{g, h, q\},</math>  <math>D = \{a, f, g\}.</math>  <math>X = (A \cup B) \cap D,</math>  <math>Y = (\overline{A} \cap \overline{B}) \setminus (C \cup D).</math></p> <p>4.1</p>	<p><b>Задача 4.30</b>  <math>A = \{g, o, v\},</math>  <math>B = \{g, h, q, v\},</math>  <math>C = \{n, o\},</math>  <math>D = \{g, n, u, v, z\}.</math>  <math>X = (A \cap C) \cup B,</math>  <math>Y = (A \cap \overline{B}) \cup (C \setminus D).</math></p> <p>4.1</p>

## Множества. Операции. Мощность.

№	Card(X)	Card(Y)		
1	1	8	$A \setminus D = a, g, l, o$	$\overline{C \setminus B} = c, d, g, q, s$
2	0	7	$A \setminus D = c, e, i, m$	$\overline{C \setminus B} = d, e, o, v$
3	5	7	$(A \cap \overline{B}) = a, c, k$	$(C \setminus D) = a, d, q, r, s$
4	2	7	$(\overline{A} \cap D) = c, u, v, z$	$(C \setminus B) = f, i, j$
5	0	5	$(A \cap \overline{B}) = a, j$	$(C \setminus D) = j, k, o, p$
6	1	7	$(\overline{A} \cap D) = v, w$	$(C \setminus B) = c, g, i, m, n$
7	3	9	$(\overline{A} \cap D) = e, h, m, o, p, t, u$	$(C \setminus B) = m, o, q, r$
8	1	10	$(\overline{A} \cap \overline{B}) = c, g, j, k, l, m, n, o, p, q, r, t, u, w, x, y, z$	$(C \cup D) = c, d, e, h, k, l, n, o, w, x$
9	1	6	$(\overline{A} \cap D) = e, v, w$	$(C \setminus B) = e, g, k, l$
10	0	11	$(\overline{A} \cap \overline{B}) = b, d, g, i, k, l, m, o, p, r, s, t, u, v, w, y, z$	$(C \cup D) = b, c, d, e, g, m, v, x, y$
11	2	8	$(\overline{A} \cap D) = a, v, w$	$(C \setminus B) = c, d, l, m, q$
12	1	5	$(A \cap \overline{B}) = l, o$	$(C \setminus D) = f, r, z$
13	2	12	$(\overline{A} \cap \overline{B}) = f, h, j, k, l, n, o, p, q, r, t, u, v, w, y, z$	$(C \cup D) = b, d, e, f, k, r, s, w, x$
14	2	13	$(\overline{A} \cap \overline{B}) = d, e, f, g, i, j, l, m, o, q, s, t, u, v, w, x, z$	$(C \cup D) = b, m, n, o, v, w$
15	6	10	$A \setminus D = c, i, m, o, t$	$\overline{C \setminus B} = b, g, h, l, v$
16	3	8	$(\overline{A} \cap D) = a, l, u, v, z$	$(C \setminus B) = n, o, t$
17	1	8	$A \setminus D = c, d, h, k, q$	$\overline{C \setminus B} = d, i, n, s$
18	5	8	$(\overline{A} \cap D) = g, i, o, p, t, u$	$(C \setminus B) = l, y$
19	2	8	$A \setminus D = c, e, s$	$\overline{C \setminus B} = a, b, f, m, y$
20	3	4	$(A \cap \overline{B}) = i, o, s, t$	$(C \setminus D) = i$
21	0	7	$(A \cap \overline{B}) = b, h, l, u$	$(C \setminus D) = h, n, v, w$
22	3	11	$(\overline{A} \cap D) = a, j, k, u, z$	$(C \setminus B) = c, d, n, o, r, x$
23	2	13	$(\overline{A} \cap \overline{B}) = b, c, e, f, g, h, k, n, o, q, r, s, t, v, y, z$	$(C \cup D) = i, k, l, m, t, y$
24	1	6	$(A \cap \overline{B}) = a, j, x$	$(C \setminus D) = a, n, p, y$
25	0	7	$(\overline{A} \cap D) = a, d, n, r$	$(C \setminus B) = p, q, y$
26	1	4	$(A \cap \overline{B}) = i, o, s, z$	$(C \setminus D) =$
27	3	8	$A \setminus D = c, d, l, m$	$\overline{C \setminus B} = j, k, n, o$
28	5	4	$(A \cap \overline{B}) = a, s$	$(C \setminus D) = j, z$
29	2	16	$(\overline{A} \cap \overline{B}) = c, d, e, f, j, k, l, m, n, q, r, s, t, u, v, w, x, z$	$(C \cup D) = a, f, g, h, q$
30	5	1	$(A \cap \overline{B}) = o$	$(C \setminus D) = o$