

**Примеры
(с ответами, на минимум, 40 шт.)
для решения транспортных задач**

<p>1)</p> <pre> 7 3 10 3 4 30 4 5 8 10 5 40 0 9 7 8 2 40 8 9 9 7 8 40 30 80 20 10 10 0 30 0 0 0 30 0 40 0 0 0 40 30 0 0 0 10 40 0 10 20 10 0 40 30 80 20 10 10 f(x) = 650 -> min </pre>	<p>2)</p> <pre> 9 1 1 8 6 30 4 2 3 6 0 40 8 9 3 7 1 40 8 9 6 3 7 40 30 80 20 10 10 0 30 0 0 0 30 0 40 0 0 0 40 0 10 20 0 10 40 30 0 0 10 0 40 30 80 20 10 10 (x) = 540 -> min </pre>
<p>3)</p> <pre> 1 2 8 2 8 30 2 5 0 5 3 40 7 10 7 5 3 40 9 7 4 0 9 40 30 80 20 10 10 0 30 0 0 0 30 30 0 10 0 0 40 0 30 0 0 10 40 0 20 10 10 0 40 30 80 20 10 10 f(x) = 630 -> min </pre>	<p>4)</p> <pre> 4 5 6 3 3 30 5 8 6 3 1 40 1 5 2 7 3 40 7 7 5 6 3 40 30 80 20 10 10 0 30 0 0 0 30 0 20 0 10 10 40 30 0 10 0 0 40 0 30 10 0 0 40 30 80 20 10 10 f(x) = 660 -> min </pre>
<p>5)</p> <pre> 7 3 1 7 5 30 7 2 10 10 5 40 0 8 5 10 10 40 8 1 5 9 6 40 30 80 20 10 10 0 0 20 0 10 30 0 40 0 0 0 40 30 0 0 10 0 40 0 40 0 0 0 40 30 80 20 10 10 f(x) = 290 -> min </pre>	<p>6)</p> <pre> 3 0 9 8 4 30 0 4 2 6 4 40 3 3 3 8 5 40 2 2 1 6 8 40 30 80 20 10 10 0 30 0 0 0 30 30 0 0 0 10 40 0 40 0 0 0 40 0 10 20 10 0 40 30 80 20 10 10 f(x) = 260 -> min </pre>

<p>7)</p> <pre> 8 8 9 0 10 30 9 2 8 3 6 40 9 8 7 1 5 40 8 8 6 6 4 40 30 80 20 10 10 20 0 0 10 0 30 0 40 0 0 0 40 0 40 0 0 0 40 10 0 20 0 10 40 30 80 20 10 10 f(x) = 800 -> min </pre>	<p>8)</p> <pre> 6 8 2 2 4 30 4 5 0 9 9 40 5 6 1 3 1 40 7 4 0 5 5 40 30 80 20 10 10 20 0 0 10 0 30 10 10 20 0 0 40 0 30 0 0 10 40 0 40 0 0 0 40 30 80 20 10 10 f(x) = 580 -> min </pre>
<p>9)</p> <pre> 6 6 7 3 1 30 5 8 7 2 0 40 8 1 3 6 3 40 1 3 4 2 9 40 30 80 20 10 10 0 30 0 0 0 30 0 0 20 10 10 40 0 40 0 0 0 40 30 10 0 0 0 40 30 80 20 10 10 f(x) = 440 -> min </pre>	<p>10)</p> <pre> 4 2 1 3 6 30 6 3 5 9 10 40 4 0 2 8 2 40 8 7 9 4 7 40 30 80 20 10 10 10 0 20 0 0 30 0 40 0 0 0 40 0 40 0 0 0 40 20 0 0 10 10 40 30 80 20 10 10 f(x) = 450 -> min </pre>
<p>11)</p> <pre> 1 0 8 10 6 30 7 4 6 0 7 40 8 7 1 5 6 40 4 2 5 2 6 40 30 80 20 10 10 30 0 0 0 0 30 0 30 0 10 0 40 0 10 20 0 10 40 0 40 0 0 0 40 30 80 20 10 10 f(x) = 380 -> min </pre>	<p>12)</p> <pre> 6 2 2 1 8 30 1 2 2 1 6 40 5 2 7 1 6 40 2 4 3 6 7 40 30 80 20 10 10 0 20 0 10 0 30 20 20 0 0 0 40 0 40 0 0 0 40 10 0 20 0 10 40 30 80 20 10 10 f(x) = 340 -> min </pre>

<p>13)</p> <pre> 9 1 7 4 2 30 7 4 7 3 8 40 0 2 6 5 0 40 5 6 6 4 4 40 30 80 20 10 10 0 30 0 0 0 30 0 40 0 0 0 40 30 10 0 0 0 40 0 0 20 10 10 40 30 80 20 10 10 f(x) = 410 -> min </pre>	<p>14)</p> <pre> 5 2 8 5 3 30 5 5 3 5 8 40 2 1 1 10 6 40 7 4 8 3 5 40 30 80 20 10 10 0 30 0 0 0 30 20 0 20 0 0 40 10 30 0 0 0 40 0 20 0 10 10 40 30 80 20 10 10 f(x) = 430 -> min </pre>
<p>15)</p> <pre> 2 5 4 7 9 30 4 6 4 5 2 40 7 2 7 7 6 40 8 5 6 1 10 40 30 80 20 10 10 30 0 0 0 0 30 0 10 20 0 10 40 0 40 0 0 0 40 0 30 0 10 0 40 30 80 20 10 10 f(x) = 460 -> min </pre>	<p>16)</p> <pre> 10 10 2 9 6 30 7 8 6 8 4 40 6 6 4 5 9 40 2 8 10 6 5 40 30 80 20 10 10 0 0 20 0 10 30 0 40 0 0 0 40 0 40 0 0 0 40 30 0 0 10 0 40 30 80 20 10 10 f(x) = 780 -> min </pre>
<p>17)</p> <pre> 1 4 3 5 7 30 3 1 1 2 7 40 3 4 0 9 6 40 3 2 1 2 5 40 30 80 20 10 10 30 0 0 0 0 30 0 40 0 0 0 40 0 10 20 0 10 40 0 30 0 10 0 40 30 80 20 10 10 f(x) = 250 -> min </pre>	<p>18)</p> <pre> 1 5 1 4 1 30 0 3 1 9 8 40 5 7 7 9 4 40 3 4 0 10 9 40 30 80 20 10 10 10 0 0 10 10 30 20 20 0 0 0 40 0 40 0 0 0 40 0 20 20 0 0 40 30 80 20 10 10 f(x) = 480 -> min </pre>

<p>19)</p> <pre> 8 6 3 9 1 30 2 4 3 6 7 40 3 7 6 6 6 40 6 3 4 3 4 40 30 80 20 10 10 0 0 20 0 10 30 0 40 0 0 0 40 30 0 0 10 0 40 0 40 0 0 0 40 30 80 20 10 10 f(x) = 500 -> min </pre>	<p>20)</p> <pre> 1 8 5 7 1 30 1 2 5 7 4 40 7 2 1 1 0 40 6 1 8 6 1 40 30 80 20 10 10 30 0 0 0 0 30 0 40 0 0 0 40 0 0 20 10 10 40 0 40 0 0 0 40 30 80 20 10 10 f(x) = 180 -> min </pre>
<p>21)</p> <pre> 4 5 0 5 20 7 4 9 7 10 2 2 8 9 5 2 3 7 4 20 7 10 2 10 25 30 20 20 10 10 0 0 10 20 0 10 0 0 10 0 5 0 0 5 15 5 0 0 20 5 0 20 0 25 30 20 20 10 f(x) = 260 -> min </pre>	<p>22)</p> <pre> 9 1 1 8 20 6 4 2 3 10 6 0 8 9 5 3 7 1 8 20 9 6 3 7 25 30 20 20 10 0 20 0 0 20 0 0 0 10 10 5 0 0 0 5 20 0 0 0 20 5 0 20 0 25 30 20 20 10 f(x) = 245 -> min </pre>
<p>23)</p> <pre> 10 6 0 10 20 4 1 6 2 10 2 8 1 9 5 10 0 3 9 20 8 10 1 5 25 30 20 20 10 0 0 20 0 20 10 0 0 0 10 5 0 0 0 5 0 20 0 0 20 15 0 0 10 25 30 20 20 10 f(x) = 220 -> min </pre>	<p>24)</p> <pre> 4 5 6 3 20 3 5 8 6 10 3 1 1 5 5 2 7 3 7 20 7 5 6 3 25 30 20 20 10 15 5 0 0 20 10 0 0 0 10 0 0 5 0 5 5 0 15 0 20 0 15 0 10 25 30 20 20 10 f(x) = 280 -> min </pre>

<p>25)</p> <pre> 7 3 1 7 20 5 7 2 10 10 10 5 0 8 5 5 10 10 8 20 1 5 9 6 25 30 20 20 10 0 15 5 0 20 0 0 10 0 10 0 0 5 0 5 10 0 0 10 20 20 5 0 0 25 30 20 20 10 f(x) = 245 -> min </pre>	<p>26)</p> <pre> 3 0 9 8 20 4 0 4 2 10 6 4 3 3 5 3 8 5 2 20 2 1 6 8 25 30 20 20 10 0 20 0 0 20 0 0 10 0 10 0 0 5 0 5 5 0 5 10 20 25 0 0 0 25 30 20 20 10 f(x) = 165 -> min </pre>
<p>27)</p> <pre> 8 8 9 0 20 10 9 2 8 10 3 6 9 8 5 7 1 5 8 20 8 6 6 4 25 30 20 20 10 10 0 0 10 20 0 0 10 0 10 5 0 0 0 5 0 20 0 0 20 15 0 10 0 25 30 20 20 10 f(x) = 315 -> min </pre>	<p>28)</p> <pre> 6 8 2 2 20 4 4 5 0 10 9 9 5 6 5 1 3 1 7 20 4 0 5 5 25 30 20 20 10 5 0 15 0 20 0 0 0 10 10 0 0 5 0 5 20 0 0 0 20 5 20 0 0 25 30 20 20 10 f(x) = 125 -> min </pre>
<p>29)</p> <pre> 6 6 7 3 20 1 5 8 7 10 2 0 8 1 5 3 6 3 1 20 3 4 2 9 25 30 20 20 10 0 15 0 5 20 10 0 0 0 10 0 5 0 0 5 15 0 0 5 20 5 0 20 0 25 30 20 20 10 f(x) = 220 -> min </pre>	<p>30)</p> <pre> 4 2 1 3 20 6 6 3 5 10 9 10 4 0 5 2 8 2 8 20 7 9 4 7 25 30 20 20 10 0 20 0 0 20 0 0 5 5 10 0 0 0 5 5 20 0 0 0 20 10 0 15 0 25 30 20 20 10 f(x) = 250 -> min </pre>

<p>31)</p> <pre> 1 0 8 10 20 6 7 4 6 10 0 7 8 7 5 1 5 6 4 20 2 5 2 6 25 30 20 20 10 0 20 0 0 20 0 0 0 10 10 5 0 0 0 5 20 0 0 0 20 5 0 20 0 25 30 20 20 10 f(x) = 130 -> min</pre>	<p>32)</p> <pre> 6 2 2 1 20 8 1 2 2 10 1 6 5 2 5 7 1 6 2 20 4 3 6 7 25 30 20 20 10 0 0 10 10 20 0 0 10 0 10 5 0 0 0 5 0 20 0 0 20 25 0 0 0 25 30 20 20 10 f(x) = 175 -> min</pre>
<p>33)</p> <pre> 9 1 7 4 20 2 7 4 7 10 3 8 0 2 5 6 5 0 5 20 6 6 4 4 25 30 20 20 10 0 20 0 0 20 10 0 0 0 10 5 0 0 0 5 0 0 20 0 20 15 0 0 10 25 30 20 20 10 f(x) = 185 -> min</pre>	<p>34)</p> <pre> 5 2 8 5 20 3 5 5 3 10 5 8 2 1 5 1 10 6 7 20 4 8 3 5 25 30 20 20 10 0 20 0 0 20 0 0 0 10 10 0 0 5 0 5 20 0 0 0 20 10 0 15 0 25 30 20 20 10 f(x) = 185 -> min</pre>
<p>35)</p> <pre> 2 5 4 7 20 9 4 6 4 10 5 2 7 2 5 7 7 6 8 20 5 6 1 10 25 30 20 20 10 20 0 0 0 20 0 0 0 10 10 0 5 0 0 5 5 15 0 0 20 5 0 20 0 25 30 20 20 10 f(x) = 275 -> min</pre>	<p>36)</p> <pre> 10 10 2 9 20 6 7 8 6 10 8 4 6 6 5 4 5 9 2 20 8 10 6 5 25 30 20 20 10 0 0 20 0 20 10 0 0 0 10 0 5 0 0 5 5 15 0 0 20 15 0 0 10 25 30 20 20 10 f(x) = 385 -> min</pre>

37)

1	4	3	5	20
7	3	1	1	10
2	7	3	4	5
0	9	6	3	20
2	1	2	5	25

30 20 20 10

10	0	10	0	20
0	0	0	10	10
0	0	5	0	5
20	0	0	0	20
0	20	5	0	25

30 20 20 10

$$f(x) = 95 \rightarrow \min$$

38)

1	5	1	4	20
1	0	3	1	10
9	8	5	7	5
7	9	4	3	20
4	0	10	9	25

30 20 20 10

15	0	5	0	20
10	0	0	0	10
0	0	5	0	5
0	0	10	10	20
5	20	0	0	25

30 20 20 10

$$f(x) = 145 \rightarrow \min$$

39)

8	6	3	9	20
1	2	4	3	10
6	7	3	7	5
6	6	6	6	20
3	4	3	4	25

30 20 20 10

0	0	20	0	20
5	5	0	0	10
0	5	0	0	5
0	10	0	10	20
25	0	0	0	25

30 20 20 10

$$f(x) = 305 \rightarrow \min$$

40)

1	8	5	7	20
1	1	2	5	10
7	4	7	2	5
1	1	0	6	20
1	8	6	1	25

30 20 20 10

15	0	5	0	20
0	10	0	0	10
0	5	0	0	5
0	5	15	0	20
15	0	0	10	25

30 20 20 10

$$f(x) = 100 \rightarrow \min$$