

Привести задачу линейного программирования к каноническому виду и найти решение симплекс-методом.

1.
$$z = 3x_1 + 2x_2 \rightarrow \max;$$
$$2x_1 + x_2 \leq 10;$$
$$x_1 + 2x_2 \leq 10;$$
$$x_{1,2} \geq 0.$$

2.
$$z = x_1 + 2x_2 \rightarrow \max;$$
$$2x_1 + x_2 \leq 15;$$
$$x_1 + 2x_2 \leq 10;$$
$$x_{1,2} \geq 0.$$

3.
$$z = 3x_1 + 2x_2 \rightarrow \max;$$
$$2x_1 + x_2 \leq 10;$$
$$x_1 + 2x_2 \leq 20;$$
$$x_{1,2} \geq 0.$$

4.
$$z = x_1 + x_2 \rightarrow \max;$$
$$2x_1 + x_2 \leq 10;$$
$$x_1 + 4x_2 \leq 10;$$
$$x_{1,2} \geq 0.$$

5.
$$z = x_1 + x_2 \rightarrow \max;$$
$$2x_1 + x_2 \leq 12;$$
$$x_1 + 3x_2 \leq 10;$$
$$x_{1,2} \geq 0.$$

6.
$$z = x_1 + 2x_2 \rightarrow \max;$$
$$5x_1 + x_2 \leq 10;$$
$$x_1 + 4x_2 \leq 10;$$
$$x_{1,2} \geq 0.$$

7.
$$z = 3x_1 + 2x_2 \rightarrow \max;$$
$$2x_1 + x_2 \leq 12;$$
$$x_1 + 2x_2 \leq 10;$$
$$x_{1,2} \geq 0.$$

8.
$$z = x_1 + 3x_2 \rightarrow \max;$$
$$2x_1 + x_2 \leq 10;$$
$$x_1 + 2x_2 \leq 10;$$
$$x_{1,2} \geq 0.$$

9.
$$z = x_1 + 4x_2 \rightarrow \max;$$
$$2x_1 + x_2 \leq 10;$$
$$x_1 + 2x_2 \leq 10;$$
$$x_{1,2} \geq 0.$$

10.
$$z = x_1 + 2x_2 \rightarrow \max;$$
$$2x_1 + x_2 \leq 10;$$
$$3x_1 + 2x_2 \leq 20;$$
$$x_{1,2} \geq 0.$$

11.
$$z = 4x_1 + 2x_2 \rightarrow \max;$$
$$2x_1 + x_2 \leq 10;$$
$$x_1 + 2x_2 \leq 15;$$
$$x_{1,2} \geq 0.$$

12.
$$z = x_1 + 2x_2 \rightarrow \max;$$
$$3x_1 + x_2 \leq 12;$$
$$x_1 + 2x_2 \leq 10;$$
$$x_{1,2} \geq 0.$$

13.
$$z = x_1 + 2x_2 \rightarrow \max;$$
$$2x_1 + x_2 \leq 10;$$
$$x_1 + 3x_2 \leq 12;$$
$$x_{1,2} \geq 0.$$

14.
$$z = x_1 + 2x_2 \rightarrow \max;$$
$$2x_1 + x_2 \leq 10;$$
$$x_1 + 2x_2 \leq 8;$$
$$x_{1,2} \geq 0.$$

15.
$$z = 5x_1 + 2x_2 \rightarrow \max;$$
$$2x_1 + x_2 \leq 10;$$
$$x_1 + 2x_2 \leq 10;$$
$$x_{1,2} \geq 0.$$

16.
$$z = 3x_1 + 2x_2 \rightarrow \max;$$
$$2x_1 + x_2 \leq 12;$$
$$x_1 + 2x_2 \leq 10;$$
$$x_{1,2} \geq 0.$$

17. $z = x_1 + 4x_2 \rightarrow \max;$
 $2x_1 + x_2 \leq 10;$
 $x_1 + 2x_2 \leq 10;$
 $x_{1,2} \geq 0.$
18. $z = x_1 + 5x_2 \rightarrow \max;$
 $2x_1 + x_2 \leq 10;$
 $x_1 + 2x_2 \leq 10;$
 $x_{1,2} \geq 0.$
19. $z = x_1 + 2x_2 \rightarrow \max;$
 $4x_1 + x_2 \leq 20;$
 $x_1 + 2x_2 \leq 10;$
 $x_{1,2} \geq 0.$
20. $z = x_1 + 3x_2 \rightarrow \max;$
 $3x_1 + x_2 \leq 10;$
 $x_1 + 2x_2 \leq 10;$
 $x_{1,2} \geq 0.$
21. $z = x_1 + 4x_2 \rightarrow \max;$
 $2x_1 + x_2 \leq 10;$
 $x_1 + 2x_2 \leq 30;$
 $x_{1,2} \geq 0.$
22. $z = x_1 + 2x_2 \rightarrow \max;$
 $2x_1 + 4x_2 \leq 20;$
 $x_1 + 2x_2 \leq 10;$
 $x_{1,2} \geq 0.$
23. $z = 4x_1 + 2x_2 \rightarrow \max;$
 $2x_1 + x_2 \leq 20;$
 $x_1 + 2x_2 \leq 10;$
 $x_{1,2} \geq 0.$
24. $z = x_1 + 5x_2 \rightarrow \max;$
 $2x_1 + x_2 \leq 10;$
 $x_1 + 4x_2 \leq 10;$
 $x_{1,2} \geq 0.$
25. $z = x_1 + 2x_2 \rightarrow \max;$
 $2x_1 + x_2 \leq 20;$
 $x_1 + 2x_2 \leq 15;$
 $x_{1,2} \geq 0.$
26. $z = x_1 + 2x_2 \rightarrow \max;$
 $2x_1 + x_2 \leq 10;$
 $x_1 + 3x_2 \leq 18;$
 $x_{1,2} \geq 0.$
27. $z = 3x_1 + x_2 \rightarrow \max;$
 $x_1 + 3x_2 \leq 10;$
 $2x_1 + x_2 \leq 10;$
 $x_{1,2} \geq 0.$
28. $z = 2x_1 + x_2 \rightarrow \max;$
 $x_1 + 2x_2 \leq 10;$
 $2x_1 + x_2 \leq 8;$
 $x_{1,2} \geq 0.$
29. $z = 2x_1 + 5x_2 \rightarrow \max;$
 $x_1 + 2x_2 \leq 10;$
 $2x_1 + x_2 \leq 10;$
 $x_{1,2} \geq 0.$
30. $z = 4x_1 + x_2 \rightarrow \max;$
 $2x_1 + x_2 \leq 30;$
 $x_1 + 2x_2 \leq 10;$
 $x_{1,2} \geq 0.$
31. $z = 2x_1 + 3x_2 \rightarrow \max;$
 $2x_1 + x_2 \leq 10;$
 $x_1 + 2x_2 \leq 12;$
 $x_{1,2} \geq 0.$
32. $z = 2x_1 + x_2 \rightarrow \max;$
 $2x_1 + x_2 \leq 15;$
 $x_1 + 2x_2 \leq 20;$
 $x_{1,2} \geq 0.$