**Задание**:

Составить математическую модель задачи, решить её геометрически.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Сырьё/Продукция | A | B | C | Запасы сырья(ед.) |
| 1 | - | 1 | 1 | 7 |
| 2 | 2 | 1 | - | 14 |
| 3 | 1 | 1 | - | 10 |
| Прибыль (ден. ед.) | 4 | 6 | 1 |  |

Необходимо что бы сырьё 1-го виды была израсходовано полностью

**Решение:**

Составим математическую модель задачи.



Решим задачу геометрическим методом.





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|  | | А |  |  |  |  |  | В |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| х2 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 6 |  |  |  |  |  |  |  |  |  | С |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1 |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D |  |  |  |  |  |  |  |  |
|  | О |  | 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  |  |  |  |  | х1 | |
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Найдем координат точки С:



Поэтому 

Пусть , поэтому .