1. According to the contract, a company provides products to the selling company at the end of each quarter. The relevant information is shown in the following table. If there are too many products in the quarter and there is a surplus at the end of the quarter, the storage fee of RMB 2,000 will be paid for each ton of products overstocked in a quarter. The current plant considers the best production plan, so that the plant can complete the contract (and no year-end balance) with the lowest production costs throughout the year. Using linear programming to solve this problem.

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| --- | --- | --- | --- |
| Quarter j | Production capacity aj (tons) | The cost of production (ten thousand yuan/ton) | Quantity demanded bj (tons) |
| 1 | 30 | 15.0 | 20 |
| 2 | 40 | 14.0 | 20 |
| 3 | 20 | 15.3 | 30 |
| 4 | 10 | 14.8 | 10 |