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| Title | A Brief Overview of the Classical Transportation Problem | | |
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| Abstract |  |
| The classical transportation problem (TP) is a distribution problem where commodities are transferred from many sources to many destinations with a least total cost. Also, TP considered as one of the classifications of a linear programming (LP) problem, and it has a great alliance to inaugurate the linear program and its solution procedure. The variations of classical TP generally depend on the supply and demand constraints. The effectiveness of the algorithm for solving TP is determined by the closeness to the least cost solution to the TP. In this paper, the existence of solution to the TP, the basic theorems of classical TP, are stated and proven in a new manner. Also, an analysis has been performed to indicate the limitations of the existing solution procedures. Finally, the necessary and sufficient conditions are carried out for the optimality to the TP. | |