A simple optimal approach for the inventory replenishment problem with linear demand

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Abstract

This study proposes a simple algorithm for obtaining an optimal solution on the classical inventory replenishment problem which represents with a linear function in demand for both increasing and decreasing cases. A general procedure is proposed and examples are given to illustrate that our simple approach is also as good as the approaches shown in the literature.

Keywords: Inventory replenishment, linear trend in demand.

1. Introduction

The inventory replenishment problem has been attracted by many researches for over 20 years. This study is to provide an alternative, simple and accurate algorithm to solve the classical inventory replenishment problem.