The evaluations among the three solution procedures to an integrated single-vendor single-buyer inventory systems with shortage

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Abstract  
In this journal [Production Planning and Control], there are three solution procedures:  
(1) The algebraic approach,  
(2) Cauchy-Schwarz inequality and the arithmetic-geometric mean inequality approach, and  
(3) The calculus approach, to solve the integrated single-vendor single-buyer inventory systems with shortage. Two criteria are used to evaluate the three approaches. As argued in this note, we conclude that adopting the calculus approach to solve the inventory model is more recommended.

Keywords: integrated inventory model; single-vendor single-buyer; shortage

1. Introduction  
In the journal [Production Planning and Control], there are three solution procedures:

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