

ABSTRAK

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Judul : Penyelesaian Masalah Transportasi *Fully Interval Integer* Menggunakan Metode *Separation*, Metode *Mid-Width*, dan Metode *Row-Column Minima*

Penelitian ini membahas tentang perbandingan Metode *Separation*, Metode *Mid-Width*, dan Metode *Row-Column Minima* untuk penyelesaian masalah transportasi *fully interval integer*. Metode *Mid-Width* ditentukan dengan membagi masalah transportasi *fully interval integer* menjadi masalah transportasi *mid-value* dan masalah transportasi *half-width*, sedangkan Metode *Separation* dan Metode *Row-Column Minima* ditentukan dengan membagi masalah transportasi *fully interval integer* menjadi masalah transportasi batas atas dan masalah transportasi batas bawah. Perbedaan dari Metode *Separation* dan Metode *Row-Column Minima* adalah pada masalah transportasi batas bawah. Dalam Metode *Separation*, masalah transportasi batas bawah diselesaikan menggunakan metode langsung, yaitu Metode *Zero Point*, sedangkan pada Metode *Row-Column Minima* masalah transportasi batas bawah diselesaikan dengan menandai sel yang teralokasi pada masalah transportasi batas atas dan sel tersebut dialokasikan semaksimal mungkin. Ketiga metode tersebut merupakan metode yang digunakan untuk menyelesaikan masalah transportasi *fully interval integer*, dimana *demand*, *supply*, dan biayanya bernilai interval. Analisis perbandingan data seimbang dan tidak seimbang dengan ukuran data masing-masing 4×3 , memberikan kesimpulan bahwa Metode *Mid-Width* lebih baik dibandingkan dengan kedua metode lainnya karena Metode *Mid-Width* memberikan solusi optimal dengan *range* jarak interval yang lebih kecil dibandingkan dengan Metode *Separation* dan Metode *Row-Column Minima*.

Kata kunci: Masalah Transportasi *Fully Interval Integer*, Solusi Optimal, Metode *Separation*, Metode *Mid-Width*, dan Metode *Row-Column Minima*

ABSTRACT

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Title : Solving the Fully Interval Integer Transportation Problem Using the Separation Method, the Mid-Width Method, and the Row-Column Minima Method

This study discusses the comparison of the Separation Method, the Mid-Width Method, and the Row-Column Minima Method for solving the fully interval integer transportation problem. The Mid-Width method is determined by dividing the fully interval integer transportation problem into a mid-value transportation problem and a half-width transportation problem, while the Separation Method and the Row-Column Minima Method are determined by dividing the fully interval integer transportation problem into an upper bound transportation problem and a lower bound transportation problem. The difference between the Separation Method and the Row-Column Minima Method is the lower bound transportation problem. In the Separation Method, the lower bound transportation problem is solved using the direct method, namely the Zero Point Method, whereas in the Row-Column Minima Method the lower bound transportation problem is solved by marking the allocated cells in the upper bound transportation problem and the cells are allocated as much as possible. Those three methods are methods used to solve the fully integer integer transportation problem, where the demand, supply, and costs are interval values. Comparative analysis of balanced and unbalanced data with a data size of 4×3 respectively, concludes that the Mid-Width Method is better than the other two methods because the Mid-Width Method provides optimal solutions with a smaller range of intervals compared to the Separation Method and Row-Column Minima Method.

Keywords: Fully Interval Integer Transportation Problem, Optimal Solution, Separation Method, Mid-Width Method, and Row-Column Minima Method