

Newsweek artikel fra 1954: Travelling salesman problemet

SCIENCE

Drummer's Delight: The Shortest Way Around

Newsweek—Bensl

FINDING the shortest route for a traveling salesman—starting from a given city, visiting each of a series of other cities, and then returning to his original point of departure—is more than an after-dinner teaser. For years it has baffled not only goods- and salesmen-routing businessmen but mathematicians as well. If a drummer visits 50 cities, for example, he has 10^{62} (62 zeros) possible itineraries. No electronic computer in existence could sort out such a large number of routes and find the shortest.

Three Rand Corp. mathematicians, using Rand McNally road-map distances between the District of Columbia and major cities in each of the 48 states, have finally produced a solution (see above). By an ingenious application of linear programming—a mathematical tool recently used to solve production-scheduling problems—it took only a few weeks for the California experts to calculate “by hand” the shortest route to cover the 49 cities: 12,345 miles.

NEWSWEEK

Cover: Ike's Vacation Land

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(See Special Report—Photos in Color)