Inventory Routing

Exercise
Course: Optimization problems in production planning

Simon Spoorendonk
DIKU, University of Copenhagen
September 4th, 2006

1 Build a model for the IRP

Build an IP model for the Inventory Routing Problem that minimizes travel distance over a finite time horizon.

2 Test your model

Use your model to solve the IRP giving as example in the lecture. The correct solution should be 380 miles a day for the 2 day period.

3 Complexity of the IRP

Prove that the deterministic order-up-to level IRP is NP-hard.