Report to Boss

|  |  |
| --- | --- |
|  | Set of Juices |
|  | Set of Fruits |
|  | Set of Quarters |
|  | Set of locations |

Sets

Data

|  |  |
| --- | --- |
|  | Part, as a per cent figure, of a fruit in a juice |
|  | The blend, as a per cent description, of fruit in a given juice |
|  | Cost in dollars per kilolitre of the purchasing and processing of a given fruit |
|  | Anticipated kilolitres of demand for a given juice, , in a given quarter |
|  | Supply of orange juice fruit concentrate from Brisbane in kilolitres for a given quarter |
|  | Determination of whether a given juice, is gourmet |
|  | Cost, in dollars, of travel from a given location, , to another, |
|  |  |

Variables

|  |  |
| --- | --- |
|  | Number of kilolitres produced of a given juice, , in a given quarter |
|  | Number of trucks delivering a given fruit, , in a given quarter |
|  | (Purpose ? ) juice in a given quarter |
|  | (Purpose ? ) location to a given location |

Objective

Constraints

|  |  |  |
| --- | --- | --- |
|  |  | (1) |
|  |  | (2) |
|  |  | (3) |
|  |  | (4) |
|  |  | (5) |
|  |  | (6) |
|  |  | (7) |
|  |  | (8) |
|  |  | (9) |

Constraint purpose:

1. Production does not exceed demand
2. Production does not exceed orange juice concentrate supply received from Brisbane
3. Production from any juice does not exceed the supply received from the trucks in that quarter
4. “if the juice is gourmet, and it’s being used, it consumes a spot” ??
5. “essentially if G then X else 0” ??
6. ProduceOnePerTwoQuarters ?
7. Only one truck arrives at each location
8. Only one truck leaves each location
9. NoTwoLocationLoops ?