



Using Prescriptive Analytics in Excel Activities Workbook

Instructions:

The transportation department wants to minimize the cost to ship boxes to customers.

Shipping cannot exceed supply of 1275.

Based on costs of shipping between cities, where should products ship from?

Use the information on the following tab to answer the above question related to shipping. U

You do not need to submit this workbook, please feel free to use it for your own practice.

		Shipping Costs from Manufacturing	
Customer Locations	Box Orders	San Fran	Madison
NYC	125	\$ 108.95	\$ 21.50
Madison	187	\$ 116.45	\$ 25.40
San Mateo	64	\$ 20.25	\$ 78.15
Wilmington	313	\$ 84.00	\$ 38.40
Tampa	567	\$ 50.85	\$ 50.00
Boston	78	\$ 86.65	\$ 7.95
Total	1334		
Initial Inventory			
Remaining Inventory			

Constraints

Number Shipped (G5:J9)	int	Integer
Shipped (K4:K9)	>=	Box Orders (B4:B9)
Remaining Inventory (G13:J13)	>=	0
Total Orders Shipped (K10)	<=	(K12)

The transportation department wants to minimize the cost to ship boxes to customers.
Based on costs of shipping between cities where should products ship from?
Shipping cannot exceed supply of 1275

Prolific Technology, Inc. Transportation to Warehouse

Plant (per box)		Numberof Items Shipped			
Wilmington	DUMMY	San Fran	Madison	Wilmington	DUMMY
\$ 27.15	\$ -	0	125	0	0
\$ 47.90	\$ -	123	64	0	0
\$ 65.55	\$ -	64	0	0	0
\$ 13.90	\$ -	313	0	0	0
\$ 33.95	\$ -	567	0	0	0
\$ 26.20	\$ -	19	0	0	0
		500	189	0	0
		500	475	300	0
		0	286	300	0

Shipped	Total Costs
125	\$ 2,687.50
187	\$ 15,948.95
64	\$ 1,296.00
313	\$ 26,292.00
567	\$ 28,831.95
19	\$ 1,646.35
1275	\$ 46,224.45
1,275	
586	