Graded Assignment 1 - TCC Distribution Network

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5.0/5.0 points (graded)

TCC runs two large consolidation and processing facilities for cotton in Asia. Small farmers harvest cotton and deliver it to these two TCC facilities. TCC's two facilities I and S have a weekly capacity of 1000 and 800 tons to process cotton.

TCC also operates two large warehouses closer to their final customers. They ship the pre-processed cotton from the processing facilities to these two warehouses.

From the warehouses they send the cotton to their three large customers. Past experience tells TCC that the three customers have a weekly demand (in tons): D1 = 500, D2 = 300, and D3 = 1000.

The cost to transport a ton of Cotton from a sorting facility to a warehouse and from the warehouse to the customers depends on the distances between the different locations and are given in the two tables below:

Origin: Processing Facility	Destination: Warehouse	Transportation Cost (Euros/ton)
Processing Facility I	Warehouse A	60
	Warehouse B	50
Processing Facility S	Warehouse A	43
	Warehouse B	49

Origin: Warehouse	Destination: Customer	Transportation Cost (Euros/ton)
Warehouse A	Customer 1	64
	Customer 2	63
	Customer 3	71
Warehouse B	Customer 1	44
	Customer 2	62
	Customer 3	58

TCC wants to minimize the total weekly cost. They ask you to optimize the cotton flow from the processing facilities to their customers.

In the optimal solution, what is the minimum total weekly cost of moving cotton from facilities to customers? Enter your answer in Euros without a currency symbol.

186300 ✔

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How many tons of cotton should TCC ship through Warehouse B per week?

1500 ✔

1500

Submit You have used 1 of 2 attempts

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