

A Cocoa Purchase Planning Problem

November 21, 2018

Description

Our chocolate factory buys different kind of cocoa beans from three suppliers and then sells chocolate bars to retailers. For next winter, we are producing four new kind of chocolates bars and we have already received orders to be filled, as given in the following table.

Kind	Orders	S1		S2		S3	
		<i>Capacity</i>	<i>Price</i>	<i>Capacity</i>	<i>Price</i>	<i>Capacity</i>	<i>Price</i>
<i>Milk</i>	80	40	5	45	6	30	4
<i>White</i>	70	25	4	30	5	25	6
<i>Dark</i>	120	70	8	75	7	30	10
<i>Ruby</i>	90	50	10	30	15	30	12
Total		150		160		90	

Determine the optimal cocoa purchase planning minimizing total costs.