

**Dersin Temel Konusu: Gerçekte yapılması zor olanı basite indirgeme yetkinliği**

## Örnek Problem Çözümü

### EXAMPLE 2.2 *Herrick Foods Company*

Herrick Foods Company wishes to introduce packaged trail mix as a new product. The ingredients for the trail mix are seeds, raisins, flakes, and two kinds of nuts. Each ingredient contains a certain amount of vitamins, minerals, protein, and calories; and the Marketing Department has specified the product be designed so that a certain minimum nutritional profile is met. The decision problem is to minimize the product cost and determine the product composition—that is, by choosing the amount of each ingredient in the mix. The data shown below summarize the parameters of the problem.

	Grams per pound					Nutritional requirement
	Seeds	Raisins	Flakes	Pecans	Walnuts	
Vitamins	10	20	10	30	20	16
Minerals	5	7	4	9	2	10
Protein	1	4	10	2	1	15
Calories	500	450	160	300	500	600
Cost/pound	\$4	\$5	\$3	\$7	\$6	

Kitap Sayfa : 39 Example 2.2

Herrick Ford Food firmasında bileşenlerden en az maliyet ile ürün çıkarmam için ne kadar kullanmam gerekiyor..?

Çözüm Excel – Ders 3.1 Örnek Çözüm

**EXAMPLE 2.3** *Acme Communications*

Acme Communications operates a regional call center where the workday is broken down into six 4-hour shifts, and each operator works two consecutive shifts. The table below describes staff requirements on each shift.

Shift number	#1	#2	#3	#4	#5	#6
Time period	2 am–6 am	6 am–10 am	10 am–2 pm	2 pm–6 pm	6 pm–10 pm	10 pm–2 am
Requirement	10	20	45	40	50	12

The call center's manager wishes to assign operators to the six available starting times so that the staffing requirements are covered in each period and the total workforce size is as small as possible. ■

## Kitap Sayfa : 44 Example 2.3

Öyle bir plan yapalım ki kişi sayısı Minimum olsun..

Shiftlerimize  $X_1, X_2, X_3, X_4, X_5, X_6$  verelim.

Zmin :  $X_1 + X_2 + X_3 + X_4 + X_5 + X_6$

Her shift te maliyet farklı olsa başına katsayı konacaktı..

**$3X_1 + 7X_2 + 6X_3 + 9X_4 + 2X_5 + 4X_6$  örneğin**

Kriterlerimiz..

1. Shift  $X_1 + X_6 \geq 10$
2. Shift  $X_1 + X_2 \geq 20$
3. Shift  $X_2 + X_3 \geq 45$
4. Shift  $X_3 + X_4 \geq 40$
5. Shift  $X_4 + X_5 \geq 50$
6. Shift  $X_5 + X_6 \geq 12$

Olmalıdır..

Çözüm Excel – Ders 3.2 Örnek Çözüm