## Cake! From Section 3.10

Handout the example below, give students a few minutes to think about how the variables might be set up.

(Exercise 3, p. 104)

James Beerd bakes cheesecakes and Black Forest cakes. During any month, he can bake at most 65 cakes. The costs per cake and the demands for cake, which must be met on time, are listed below. It costs 50 cents to hold a cheesecake and 40 cents to hold a Black Forest cake in inventory for a month. Formulate an LP to minimize the total cost of meeting the next three months' demands.

|            |              | Demand | Cost/Cake |
|------------|--------------|--------|-----------|
| • Month 1: | Cheesecake   | 40     | 3.00      |
|            | Black Forest | 20     | 2.50      |
| • Month 2: | Cheesecake   | 30     | 3.40      |
|            | Black Forest | 30     | 2.80      |
| • Month 3: | Cheesecake   | 20     | 3.80      |
|            | Black Forest | 10     | 3.40      |