

Exercise 1

The Brener company sews sports jackets. The planned volume of production and sales in the month of January was 12,000 jackets. The expected selling price was set at CZK 7,000. The standard of consumption of the basic unit material is 3 bm per one jacket, the predetermined price of 1 bm of material was set at 800 CZK. Variable overhead costs are dependent on the number of hours worked. The amount of variable overhead costs for one hour is 200 CZK, and it takes 3 hours to sew one jacket (standard time consumption). Fixed costs were budgeted with a limit of CZK 24,000,000.

In fact, 10,000 jackets were produced and sold, the actual unit material consumption was 30,100 bm, and the actual labor hours were 32,000 hours. The actual amount of costs and revenues was as follows:

Actual sales revenue	71 500 000 CZK
Actual unit material consumption	24 170 000 CZK
The actual amount of variable overhead costs	6 080 000 CZK
Actual amount of fixed costs	24 250 000 CZK

Tasks:

1. Set standards for 1 jacket
2. Find out the budgeted (standard) and actual profit

Exercise 2

Business management considers variants of the volume sold and changes in prices based on the calculation of how much it would be necessary to increase the quantity sold so as not to change the original budgeted profit. It is based on the fact that the simultaneously achieved contribution from sales amounts to 0.25 or 25% for the company as a whole. Company management is considering a variant price reduction of 5%, 10%, 15% and 20%.

- Find out by what percentage the sales volume would have to increase under the given circumstances in order for the company to reach the original budgeted profit.

Exercise 3

From the analysis of the costs required to produce and sell one bottle of mineral water, it follows that its unit variable costs amount to CZK 11, and the total monthly fixed costs of production and sales amount to CZK 350,000. Based on a market survey, it was found that the selling prices at which one bottle can be sold are CZK 18, CZK 22 and CZK 24. At a price of CZK 18, 200,000 bottles can be expected to be sold. The price elasticity of demand is estimated at 1.2.

- What price should a firm set if its objective is to maximize profit?

Exercise 4

Two types of irons are produced at Žehlička, a.s.: iron A requires unit variable costs of CZK 270 and is sold for CZK 500. Iron B requires unit variable costs of CZK 380 and sells for CZK 650.

Task:

- a) Which of these products should the company prioritize at the moment, if both are equally labor-intensive and require machine capacity?
- b) Which of the products should the company focus on if the "bottleneck" of the business process is the capacity of the machinery on which iron B spends twice as much time as iron A?

Exercise 5

Two types of irons are produced at Žehlička, a.s.: iron A requires unit variable costs of CZK 270 and is sold for CZK 500. Iron B requires unit variable costs of CZK 380 and sells for CZK 650. Both products are equally demanding on capacity, and the company decided to produce and sell the more profitable product B (higher margin) in the monitored period. Fixed costs, unchanged for capacity utilization in the interval of 900 - 2,500 products, amount to CZK 250,000.

Tasks:

1. How many products need to be produced and sold
 - a) To reach a tipping point?
 - b) To achieve a profit of CZK 370,000?
2. What is the company's margin of safety?
3. Build a budget for B irons

Exercise 6

The municipal office assesses various options for the construction of a kindergarten from an economic point of view. One of these variants has the following parameters:

- Estimated lifetime is 32 years
- Investment expenses amount to CZK 20 million
- Average annual operating costs amount to CZK 3 million.

Express the average annual cost of this investment option, assuming that the cost of capital has been estimated at 10% considering all construction conditions.