D15 Cost accounting – Solutions

1

	Cost types		Cost centers	Cost objects
	Direct costs	Overhead costs		
Design department			×	
Ball bearings	×			
Skateboard				×
Screws & nuts	×			
Assembly department			×	
Grinder maintenance		×		
Wood	×			
Grinding material		×		
Adhesive coating (Grip)	×			
Storeroom			×	
Axles	×			
Longboard				×
Wheels	×			
Building maintenance		×		
Packaging department			×	

2

a Number of hours worked per cost center

b Room size (square or cubic meters)

c Machine hours

3

Calculation of fixed costs

Material overhead costs	CHF	37,500
Production overhead costs	CHF	125,000
Administrative overhead costs	CHF	40,000
Sales and marketing overhead costs	CHF	22,500
Total fixed costs	CHF	225,000

Calculation of variable costs	Cost/unit	
Variable material costs per unit	CHF	25.00
Variable production costs per unit	CHF	10.00
Variable sales costs per unit	CHF	2.50
Total variable costs/unit	CHF	37.50

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Contribution margin I:		(per unit)
Net proceeds (sales price)	CHF	100.00
–Variable costs	CHF	–37.50
Contribution margin I	CHF	62.50

Break-even point

$$\frac{\text{Total fixed costs}}{\text{Contribution margin I}} = \frac{\text{CHF 225,000}}{\text{CHF 62.50}} = 3{,}600 \text{ units}$$

The break-even point is 3,600 units. If the enterprise sells more than 3,600 units, it makes a profit. If it sells less than 3,600 pieces, it has to face a loss.

4

Calculation of the invoice	(in CHF)		
Gross credit purchase price	15,000	100%	
– Quantity discount	– 750	– 5%	
= Net credit purchase price	14,250	95%	→ 100%
– Cash discount	– 285		– 2%
Net cash purchase price	13,965		98%
+ Delivery costs	0		
= Cost value	13,965		

The supplier, Tschepp, issues Peter Fischer an invoice in the amount of CHF 14,250. If Mr. Fischer pays the invoice within 10 days, he can deduct the 2% cash discount from the net credit purchase price and only have to transfer CHF 13,965.
Particularly important here is that that the supplier has already noted the quantity discount of 5% on the invoice and deducted it from the invoice amount.

5

Calculation of the net sales price	(in CHF)
Cost value	150
+ Overhead costs	30
= Cost price	180
+ Net profit	+ 27
= Net sales price	207

The net sales price of a fitness machine would be CHF 207.

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6

Calculation of the gross credit sales price:	(in CHF)		
Net proceeds	18,000		
+ Transport costs	+ 600		
= Net sales price	18,600	98%	
+ Cash discount	+ 380	+ 2%	
= Net credit sales price	18,980	100%	→ 88%
+ Retailer discount	+ 2,588		+ 12%
= Gross credit sales price (rounded to the nearest CHF)	21,568		100%

a The gross credit sales price amounts to CHF 21,568. As in Question 4, it is important to consider when calculating the gross credit sales price that the retailer discount has already been noted on the customer invoice.

b The invoice amounts to CHF 18,980 (the retailer discount is already deducted). In the case of compliance with the discount condition (e.g., if paid within 10 days), the customer may deduct a further 2%.

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