

Task A9.54: Inventory Valuation

PINE Ltd. is a manufacturer for chairs. The company discloses the balance sheet as below:

Pine Ltd.			
STATEMENT of FINANCIAL POSITION			
as at 31.12.20X2			
A			C, L
<i>Non-current assets</i>	[ZAR]	<i>Equity</i>	[ZAR]
P, P, E	800,000.00	Share capital	500,000.00
Intangibles		Reserves	700,000.00
Financial assets		Retained earnings	
<i>Current assets</i>		<i>Liabilities (liab.)</i>	
Inventory	728,500.00	Long-term liab. IBL	700,000.00
Acc. receivables A/R	12,000.00	Short-term liab. A/P	100,000.00
Prepaid expenses	30,000.00	Provisions	
Cash/Bank	429,500.00	Income tax liab.	
Total assets	2,000,000.00	Total equity and liab.	2,000,000.00

Exhibit 1: Balance sheet

PINE Ltd. produces 1 chair from 4 legs and one plastic seat. The company applies a perpetual inventory system and the cost formula first-in-first-out for all inventory movements.

At the beginning of the Accounting period 20X2, there are 360 legs at 85.00 ZAR/u and 1,200 seats at 250.00 ZAR/u on stock. The inventory of finished goods (chairs) is 346 chairs at 1,150.00 ZAR/u cost of manufacturing.

On its opening balance sheet, the company discloses 30,000.00 ZAR prepaid expenses for the factory rent which is 10,000 ZAR/m. (rent must be paid 3 months in advance).

The liabilities are from a bank loan which has a principal of 1,000,000.00 ZAR and an annual rate of interest of 7.5%/a. The pay-off is 100,000.00 ZAR/a every year. Interest and pay-off must be paid on 31.12.20XX.

In the Accounting period 20X3, the company manufactures 40,000 chairs in two batches at a lot size of 20,000 units each. This is the normal capacity. The first one starts on 15.01.20X3 and the second one on 15.07.20X3.

PINE Ltd. purchases 80,000 legs on 2.01.20X3 at 90.00 ZAR/u and another 80,000 ones on 1.07.20X3 at 92.00 ZAR/u. It also buys 40,000 seats at 300.00 ZAR/u. (all purchase prices are net values – you must consider VAT). At the end of the Accounting period, after both job orders have been completed, PINE Ltd. sells 37,564 chairs at a net selling price of 1,250.00 ZAR/u.

During the Accounting period 20X3, PINE Ltd. collects all receivables from its customers as disclosed on the balance sheet under the item accounts receivables.

Depreciation in the production department is 200,000.00 ZAR/a. Direct labour costs for the workers is amounting to 8,000,000.00 ZAR/a. It applies at a half-half-ratio for the two job orders. For the production planning and supervision in the factory, PINE Ltd. pays 3,500,000.00 ZAR/a indirect labour costs. The predetermined overhead allocation rate in the factory is 95.00 ZAR/chair produced. It is linked to depreciation, indirect labour and rent. The administration costs are 6,000,000.00 ZAR/a. Administration and interest are not related to production.

Required: Prepare a balance sheet and an income statement as at 31.12.20X3 for PINE Ltd. For your safety you can disclose the inventories based on the single accounts for legs, seats and chairs. You must consider VAT, however, rent and administrative expenses are not VATable.

PINE Ltd. ist ein Stuhlhersteller. Das Unternehmen zeigt die untenstehende Bilanz:

Pine Ltd.			
STATEMENT of FINANCIAL POSITION			
as at 31.12.20X2			
A			C, L
<i>Non-current assets</i>	[ZAR]	<i>Equity</i>	[ZAR]
P, P, E	800,000.00	Share capital	500,000.00
Intangibles		Reserves	700,000.00
Financial assets		Retained earnings	
<i>Current assets</i>		<i>Liabilities (liab.)</i>	
Inventory	728,500.00	Long-term liab. IBL	700,000.00
Acc. receivables A/R	12,000.00	Short-term liab. A/P	100,000.00
Prepaid expenses	30,000.00	Provisions	
Cash/Bank	429,500.00	Income tax liab.	
Total assets	2,000,000.00	Total equity and liab.	2,000,000.00

Exhibit 1: Balance sheet

PINE Ltd. stellt einen Stuhl aus 4 Beinen und einer Plastiksitzfläche her. Das Unternehmen wendet ein permanentes Lagerhaltungssystem (perpetual system) und die Verbrauchsfolgefiktion (cost formula) First-in-First-out auf alle Lagerbewegungen an. Zu Beginn der Abrechnungsperiode 20X2 befinden sich 360 Beine zu 85,00 ZAR/Stück und 1.200 Plastiksitzflächen zu 250,00 ZAR/Stück am Lager. Der Fertigerzeugnisbestand (Stühle) beträgt 346 Stühle zu 1.150 ZAR/Stück Herstellungskosten (finished goods inventories).

Das Unternehmen weist 30.000,00 ZAR für die Miete der Fabrik aus, die 10.000,00 ZAR/Monat beträgt. (Die Miete muss 3 Monate im Voraus bezahlt werden.)

Die Schulden stammen von einem Bankdarlehen, dass einen Nennbetrag von 1.000.000,00 ZAR und einen jährlichen Zinssatz von 7,5 %/a hat. Die Tilgung (pay-off) beträgt in jedem Jahr 100.000,00 ZAR/a. Zinsen und Tilgung werden zum 31.12.20XX bezahlt.

In der Abrechnungsperiode 20X3 stellt das Unternehmen 40.000 Stühle in zwei Losen zu jeweils 20.000 Stück her. Dieses entspricht der Normalkapazität. Der erste Fertigungsauftrag beginnt am 15.01.20X3 und der zweite am 15.07.20X3.

PINE Ltd. kauft 80.000 Beine am 2.01.20X3 zu jeweils 90,00 ZAR/Stück und weitere 80.000 Stück am 1.07.20X3 zu jeweils 92,00 ZAR/Stück ein. Sie kauft ebenfalls 40.000 Plastiksitzflächen zu 300,00 ZAR/Stück ein. Die Einkaufswerte sind netto, Sie müssen die Umsatzsteuer berücksichtigen. Zum Ende der Abrechnungsperiode sind beide Fertigungsaufträge abgeschlossen. PINE Ltd. verkauft 37.564 Stühle zu einem Nettoverkaufspreis von 1.250,00 ZAR/Stück.

Während der Abrechnungsperiode 20X3 vereinnahmt PINE Ltd. alle Forderungen von ihren Kunden, wie sie in der Bilanz unter Forderungen ausgewiesen waren.

Die Abschreibung auf den Produktionsbereich beträgt 200.000,00 ZAR/a. Die Lohneinzelkosten (direct labour) für die Arbeiter betragen 8.000.000,00 ZAR/a. Sie werden im Verhältnis halb-halb auf die beiden Fertigungsaufträge zugerechnet. Für die Produktionsplanung und den Meisterlohn in der Fabrik zahlt die PINE Ltd. 3.500.000,00 ZAR/a Lohngemeinkosten (indirect labour). Der Plankostenverrechnungssatz (predetermined overhead allocation rate) in der Fabrik beträgt 95,00 ZAR/produziertem Stuhl. Er bezieht sich auf die Abschreibungen, Lohngemeinkosten und Miete. Der Verwaltungsaufwand beträgt 6.000.000,00 ZAR/a. Der Aufwand für Verwaltung und Zinsen sind nicht produktionsbezogen.

Gefragt: Erstellen Sie eine Bilanz und eine Gewinn- und Verlustrechnung zum 31.12.20X3 für die PINE Ltd. Sie müssen die Umsatzsteuer berücksichtigen, jedoch sind Miete und Verwaltungsaufwand umsatzsteuerfrei (non-VATable).

Solution:

- (1) Transfer of rent to the Rent-20X3 account.
- (2) Recording rent payments of $12 * 10,000 = 120,000.00$ ZAR.
- (3) Debts collection: 12,000.00 ZAR.
- (4) Purchase of 80,000 legs at 90.00 ZAR/u = 7,200,000.00 ZAR net value.
- (5) Purchase of 80,000 legs at 92.00 ZAR/u = 7,360,000.00 ZAR net value.
- (6) Purchase of 40,000 seats at 300.00 ZAR/u = 12,000,000.00 ZAR net value
- (7) Depreciation 200,000.00 ZAR.
- (8) Recording direct labour 8,000,000.00 ZAR
- (9) Recording indirect labour 1,500,000.00 ZAR.
- (10) Recording admin costs: 6,000,000.00 ZAR.
- (11) Recording prepaid expenses for 20X4: 30,000.00 ZAR
- (12 ... 14) Recording interest and pay-off: $7.5\% * (700,000 + 100,000) = 60,000.00$ ZAR. Pay-off equals 100,000.00 ZAR. Pay-off for the next year must be reclassified.
- (15) Revenue recognition: $37,564 * 1,250 = 46,955,600.00$ ZAR.

(16) Recording cost of sales

Inventories legs INL			Inventories seats INS			Property, plant, equipment PPE		
D		C	D		C	D		C
360	OV	30,600.00	1200	OV	300,000.00		OV	800,000.00
80000	(4)	7,200,000.00	40000	(6)	12,000,000.00			
80000	(5)	7,360,000.00						
		<u>14,590,600.00</u>			<u>12,300,000.00</u>			
360	b/d	33,120.00	b/d		360,000.00			
Finished goods inventories FGI			Manufacturing overheads MOH			Accounts receivables A/R		
D		C	D		C	D		C
340	OV	397,900.00	DPR	200,000.00	W1P 1,900,000.00	OV	12,000.00	(3) 12,000.00
20000	W1P	19,038,200.00	LAB	3,500,000.00	W2P 1,900,000.00			
20000	W2P	19,259,280.00	RNT	120,000.00	P&L 20,000.00			
		<u>38,695,380.00</u>		<u>3,820,000.00</u>	<u>3,820,000.00</u>			
b/d		2,678,965.85						
Work-in-Process-1 W1P			Work-in-Process-2 W2P			Prepaid expenses		
D		C	D		C	D		C
80000	INL	7,198,200.00	80000	INL	7,359,280.00	OV	30,000.00	(1) 30,000.00
20000	INS	5,940,000.00	20000	INS	6,000,000.00	(11)	30,000.00	
	LAB	4,000,000.00		LAB	4,000,000.00			
	MOH	1,900,000.00		MOH	1,900,000.00			
		<u>19,038,200.00</u>		<u>19,259,280.00</u>	<u>19,259,280.00</u>			
Cash/Bank C/B			Issued capital			Reserves RES		
D		C	D		C	D		C
OV	429,500.00	(2) 120,000.00	c/d	500,000.00	OV	500,000.00	c/d	700,000.00
(3)	12,000.00	(4) 8,640,000.00			b/d	500,000.00		
(15)	56,346,000.00	(5) 8,832,000.00						
		(6) 14,400,000.00						
		(8) 8,000,000.00						
		(9) 3,500,000.00						
		(12) 60,000.00						
		(13) 100,000.00						
		(16) 6,000,000.00						
		<u>7,135,500.00</u>						
b/d		56,787,500.00						
Long-term liabilities ITL			Short-term liabilities A/P			Rent-20X3		
D		C	D		C	D		C
(14)	100,000.00	OV	700,000.00	(13)	100,000.00	OV	100,000.00	MOH 120,000.00
c/d	600,000.00			c/d	100,000.00	(14)	100,000.00	(11) 30,000.00
	<u>700,000.00</u>				<u>200,000.00</u>		<u>200,000.00</u>	<u>150,000.00</u>
		b/d			b/d			
		600,000.00						
Value added tax VAT			Depreciation-20X3 DPR			Accumulated depreciation ACC		
D		C	D		C	D		C
(4)	1,440,000.00	(15) 9,391,000.00	(7)	200,000.00	MOH 200,000.00	c/d	200,000.00	(7) 200,000.00
(5)	1,472,000.00							b/d 200,000.00
(6)	2,400,000.00							
c/d	4,079,000.00							
	<u>9,391,000.00</u>							
		b/d						
		4,079,000.00						
Labour-20X3 LAB			Interest-20X3 INT			Revenue-20X3		
D		C	D		C	D		C
(8)	8,000,000.00	W1P 4,000,000.00	(12)	60,000.00	P&L 60,000.00	P&L	46,955,000.00	(15) 46,955,000.00
(9)	3,500,000.00	W2P 4,000,000.00						
		MOH 3,500,000.00						
	<u>11,500,000.00</u>	<u>11,500,000.00</u>						
Cost of goods sold-20X3 COS			Profit and Loss-20X3 P&L			Administration-20X3 ADM		
D		C	D		C	D		C
FGI	36,016,414.15	P&L 36,016,414.15	COS	36,016,414.15	REV 46,955,000.00	(16)	6,000,000.00	P&L 6,000,000.00
			MOH	20,000.00				
			ADM	6,000,000.00				
			INT	60,000.00				
			EBT	4,858,585.85				
				<u>46,955,000.00</u>				
			ITL	1,457,575.75	b/d			
			R/E	3,401,010.09				
Retained earnings R/E			Income tax liabilities ITL			name		
D		C	D		C	D		C
c/d	3,401,010.09	P&L 3,401,010.09	c/d	1,457,575.75	P&L 1,457,575.75			
		b/d			b/d			
		3,401,010.09						

Exhibit 1: Accounts

Pine Ltd.
STATEMENT of PROFIT & LOSS
and OTHER COMPREHENSIVE INCOME
for the year ended 31.12.20X3

	[ZAR]
Revenue	46,955,000.00
Other income	
	46,955,000.00
Materials	(36,016,414.15)
underapplied OHs	(20,000.00)
Other expenses	(6,000,000.00)
Earnings before int. & taxes (EBIT)	4,918,585.85
Interest	(60,000.00)
Earnings before taxes (EBT)	4,858,585.85
Income tax expenses	(1,457,575.75)
Deferred taxes	
Earnings after taxes (EAT)	3,401,010.09

Exhibit 3: Income statement (20X3)

Pine Ltd.
STATEMENT of FINANCIAL POSITION
as at 31.12.20X3

A			C, L
<i>Non-current assets</i>	[ZAR]	<i>Equity</i>	[ZAR]
P, P, E	600,000.00	Share capital	500,000.00
Intangibles		Reserves	700,000.00
Financial assets		Retained earnings	3,401,010.09
<i>Current assets</i>		<i>Liabilities (liab.)</i>	
Inventory	3,072,085.85	Long-term liab. IBL	600,000.00
Acc. receivables A/R	0.00	Short-term liab. A/P	4,179,000.00
Prepaid expenses	30,000.00	Provisions	
Cash/Bank	7,135,500.00	Income tax liab.	1,457,575.75
Total assets	10,837,585.85	Total equity and liab.	10,837,585.85

Exhibit 4: Balance sheet