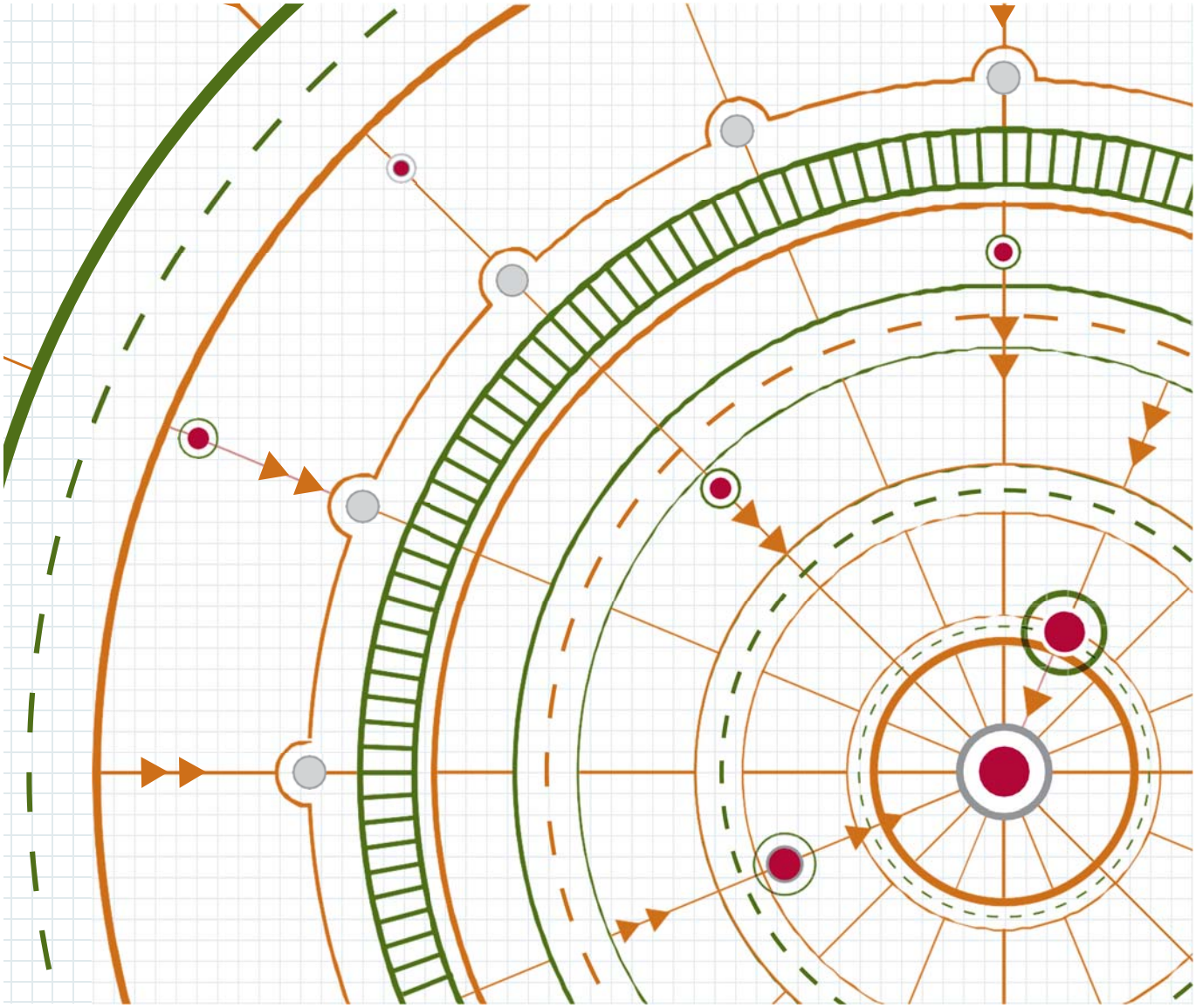
IFRS® Foundation—Supporting Material for the *IFRS for SMEs* Standard

Module 13—Inventories



IFRS®

IFRS® Foundation Supporting Material for the *IFRS for SMEs*® Standard

including the full text of
Section 13 *Inventories*
of the *IFRS for SMEs* Standard
issued by the International Accounting Standards Board in October 2015

with extensive explanations, self-assessment questions and a case study

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Module 13—Inventories

The accounting requirements applicable to small and medium-sized entities (SMEs) discussed in this module are set out in the *IFRS for SMEs* Standard, issued by the International Accounting Standards Board (Board) in October 2015.
This module has been prepared by IFRS Foundation education staff.
The contents of Section 13 *Inventories* of the *IFRS for SMEs* Standard are set out in this module and shaded grey. The Glossary of terms of the *IFRS for SMEs* Standard (Glossary) is also part of the requirements. Terms defined in the Glossary are reproduced in **bold type** the first time they appear in the text of Section 13. The notes and examples inserted by the education staff are not shaded. These notes and examples do not form part of the *IFRS for SMEs* Standard and have not been approved by the Board.

INTRODUCTION

Which version of the *IFRS for SMEs*® Standard?

When the *IFRS for SMEs* Standard was first issued in July 2009, the Board said it would undertake an initial comprehensive review of the Standard to assess entities' experience of the first two years of its application and to consider the need for any amendments. To this end, in June 2012, the Board issued a Request for Information: *Comprehensive Review of the IFRS for SMEs*. An Exposure Draft proposing amendments to the *IFRS for SMEs* Standard was subsequently published in 2013, and in May 2015 the Board issued *2015 Amendments to the IFRS for SMEs* Standard.

The document published in May 2015 only included amended text, but in October 2015, the Board issued a fully revised edition of the Standard, which incorporated additional minor editorial amendments as well as the substantive May 2015 revisions. This module is based on that version.

The *IFRS for SMEs* Standard issued in October 2015 is effective for annual periods beginning on or after 1 January 2017. Earlier application was permitted, but an entity that did so was required to disclose the fact.

Any reference in this module to the *IFRS for SMEs* Standard refers to the version issued in October 2015.

This module

This module focuses on the general requirements for recognising and measuring inventories applying Section 13 *Inventories* of the *IFRS for SMEs* Standard. It introduces the subject and reproduces the official text along with explanatory notes and examples designed to enhance understanding of the requirements. The module identifies the significant judgements required in recognising and measuring inventories. In addition, the module includes questions designed to test your understanding of the requirements and case studies that provides a practical opportunity to apply the requirements for recognising and measuring inventories applying the *IFRS for SMEs* Standard.

Module 13—Inventories

Upon successful completion of this module, you should, within the context of the *IFRS for SMEs* Standard, be able to:

- distinguish items of inventory from other assets of an entity;
- identify when items of inventory qualify for recognition in financial statements;
- measure items of inventory on initial recognition and subsequently;
- identify when an item of inventory is to be recognised as an expense;
- present and disclose inventories in financial statements; and
- demonstrate an understanding of the significant judgements that are required to be made when accounting for inventories.

IFRS for SMEs Standard

The *IFRS for SMEs* Standard is intended to apply to the general purpose financial statements of entities that do not have public accountability (see Section 1 *Small and Medium-sized Entities*).

The *IFRS for SMEs* Standard is comprised of mandatory requirements and other non-mandatory material.

The non-mandatory material includes:

- a preface, which provides a general introduction to the *IFRS for SMEs* Standard and explains its purpose, structure and authority;
- implementation guidance, which includes illustrative financial statements and a table of presentation and disclosure requirements;
- the Basis for Conclusions, which summarises the Board's main considerations in reaching its conclusions in the *IFRS for SMEs* Standard issued in 2009 and, separately, in the 2015 Amendments; and
- the dissenting opinion of a Board member who did not agree with the issue of the *IFRS for SMEs* Standard in 2009 and the dissenting opinion of a Board member who did not agree with the 2015 Amendments.

In the *IFRS for SMEs* Standard, the Glossary is part of the mandatory requirements.

In the *IFRS for SMEs* Standard, there are appendices to Section 21 *Provisions and Contingencies*, Section 22 *Liabilities and Equity* and Section 23 *Revenue.* These appendices provide non-mandatory guidance.

The *IFRS for SMEs* Standard has been issued in two parts: Part A contains the preface, all the mandatory material and the appendices to Section 21, Section 22 and Section 23; and Part B contains the remainder of the material mentioned above.

Further, the SME Implementation Group (SMEIG), which assists the Board with supporting implementation of the *IFRS for SMEs* Standard, publishes implementation guidance as 'questions and answers' (Q&As). These Q&As provide non-mandatory, timely guidance on specific accounting questions raised with the SMEIG by entities implementing the *IFRS for SMEs* Standard and other interested parties. At the time of issue of this module (July 2018) the SMEIG has not issued any Q&As relevant to this module.

Module 13—Inventories

Introduction to the requirements

The objective of general purpose financial statements of a small or medium-sized entity is to provide information about the entity's financial position, performance and cash flows that is useful for economic decision-making by a broad range of users who are not in a position to demand reports tailored to meet their particular information needs. Such users include, for example, owners who are not involved in managing the business, existing and potential creditors and credit rating agencies.

The objective of Section 13 is to prescribe the accounting treatment for inventories, as well as disclosure requirements. A primary issue in accounting for inventories is the amount of cost to be recognised as an asset and carried forward until such costs are charged to profit or loss (usually when the related revenues are recognised). This section provides guidance on the determination of cost and its subsequent recognition as an expense, including any write-down to estimated selling price less costs to complete and sell. An entity is required to assess whether there is any indication that any item of inventory may be impaired (ie the carrying amount exceeds estimated the selling price less costs to complete and sell) at each reporting date. If any such indication exists, that item of inventory is tested for impairment. Moreover, Section 13 provides guidance on the cost formulas that are used to measure the costs incurred in bringing inventories to their present location and condition. Furthermore, it also provides guidance on how to allocate joint costs incurred on joint products and by-products.

What has changed since the 2009 *IFRS for SMEs* Standard?

This section of the *IFRS for SMEs* Standard was unchanged by the 2015 Amendments. However, this module reproduces other editorial changes.

Module 13—Inventories

REQUIREMENTS AND EXAMPLES

Scope of this section

13.1 This section sets out the principles for recognising and measuring **inventories**. Inventories are **assets**:

(a) held for sale in the ordinary course of business;

(b) in the process of production for such sale; or

(c) in the form of materials or supplies to be consumed in the production process or in the rendering of services.

Notes

Inventories are assets. An asset is a resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity.

The inventories of a manufacturing entity are generally categorised as follows:

(a) finished goods—assets held for sale in the ordinary course of business;

(b) work in process—assets in the process of production for such sale;

(c) consumable stores—assets in the form of supplies to be consumed in the production process;

(d) raw materials—assets in the form of materials to be consumed in the production process.

Consumable stores and raw materials are expected to be consumed in an entity's normal operating cycle.

Finished goods are held primarily for the purpose of selling to customers.

Inventories are current assets (see paragraph 4.5).

When items such as spare parts, stand-by equipment and servicing equipment do not meet the definition of property, plant and equipment they are classified as inventory (see paragraph 17.5. of Section 17 *Property, Plant and Equipment*).

Examples—scope

Ex 1 An entity trades in commercial properties (ie it buys commercial property with a view to selling it at a profit in the near term in its ordinary course of business).

The commercial properties are inventory of the property trader. They are assets held for sale in the ordinary course of business.

Note: The assets are neither investment property (see Section 16) nor property, plant and equipment (see Section 17) of the property trader. In some cases, when properties previously accounted for in Section 17 qualify as inventory under this Section, an entity has to develop an accounting policy in accordance with Section 10 *Accounting Policies, Estimates and Errors*.

Ex 2 **An entity trades in transferable taxi licences.**

The taxi licences are inventory of the taxi-licence trader. They are assets held for sale in the ordinary course of business.

Note: In the financial statements of the taxi-licence trader the taxi licences are not intangible assets applying Section 18 *Intangible Assets other than Goodwill* (see paragraph 18.1).

Ex 3 **A vintner processes grapes harvested from its vineyards into wine in a three-year production cycle.**

From the point of harvest until the bottled wine is derecognised by the vintner, the grapes are inventory. They are material in the process of production for sale.

Note: Up to the point of harvest, the vintner's grapes are not inventory—they are biological assets (see paragraph 13.2(c)) accounted for applying paragraph 34.2.

Ex 4 **An entity holds lubricants that are consumed by the entity's machinery in producing goods.**

The lubricants are inventory. They are supplies to be consumed in the production process.

Ex 5 **An entity holds a building to earn rentals under operating leases from independent third parties.**

The building is not inventory. It is an investment property (ie an asset held to earn rentals; see Section 16 *Investment Property*).

Note: Applying paragraph 16.3, property interest held by a lessee under an operating lease may be classified and accounted for as investment property if, and only if, the property meet the definition of an *investment property* (see paragraph 16.2) and the fair value can be measured without undue cost or effort on an ongoing basis.

Ex 6 **An entity that manufactures chemicals maintains its manufacturing plant using a specially designed (bespoke) cleaning machine and a set of low-value common tools acquired from a local hardware store. The bespoke machine is expected to be used by the entity for many years.**

The bespoke equipment is not an item of inventory. It is equipment accounted for applying Section 17 *Property, Plant and Equipment*.

If the other servicing tools did not meet the definition of property, plant and equipment (for example, if they are *not* expected to be used in more than one period) they are inventory within the scope of Section 13—considered as a supply to be consumed in the production process.

Module 13—Inventories

13.2 This section applies to all inventories, except:

(a) work in progress arising under **construction contracts**, including directly related service contracts (see Section 23 *Revenue*);

(b) **financial instruments** (see Section 11 *Basic Financial Instruments* and Section 12 *Other Financial Instrument Issues*); and

(c) **biological assets** related to **agricultural activity** and **agricultural produce** at the point of harvest (see Section 34 *Specialised Activities*).

13.3 This section does not apply to the **measurement** of inventories held by:

(a) producers of agricultural and forest products, agricultural produce after harvest, and minerals and mineral products, to the extent that they are measured at **fair value less costs to sell** through **profit or loss**; or

(b) commodity brokers and dealers that measure their inventories at fair value less costs to sell through profit or loss.

Notes

With regards to paragraph 13.2(c) and agricultural produce, paragraph 34.5 specifies that an entity shall measure agricultural produce harvested from biological assets at its fair value less costs to sell at the point of harvest. Such measurement is the cost of the inventory (see paragraph 13.15) for the purpose of accounting for the agricultural produce applying Section 13 (see paragraph 13.4).

For some agricultural produce, there is an active market and a minimal risk that a farmer's produce cannot be sold. If a farmer with such produce follows a practice of measuring agricultural produce at fair value less costs to sell, the farmer would account for inventories of agricultural produce at fair value less costs to sell with changes in fair value included in profit or loss of the period in which the value changes (see paragraph 13.3(a)).

Broker-dealers (sometimes called broker-traders) buy or sell commodities (eg coffee, grain, sugar, crude oil and gold) for others on their own account. A commodity broker-dealer has inventories that are acquired principally for the purpose of selling in the near future and generating a profit from fluctuations in the price or broker-dealer's margins. To reflect the economic substance of such transactions, commodity broker-traders frequently measure their inventories at fair value less costs to sell. In such cases, the inventory must be carried at fair value less costs to sell with changes in fair value included in profit or loss of the period in which the value changes (see paragraph 13.3(b)).

Examples—scope

Ex 7 A commodity broker-dealer acquired 600 tonnes of wheat in anticipation of selling it in the short term. The broker-dealer commonly measures such inventories at fair value less costs to sell.

The commodity broker-dealer must account for inventories at fair value less costs to sell, with changes in fair value included in profit or loss of the period in which the value changes.

Ex 8 **A nut farmer believes that the price of nuts will increase significantly in the months after he harvests his crop. In anticipation of charging higher prices, the farmer stores the harvested nuts for three months. The farmer measures inventories at fair value less costs to sell.**

The farmer must account for the inventories of harvested nuts at fair value less costs to sell with changes in fair value included in profit or loss of the period in which the value changes (see paragraph 13.3(a)).

Measurement of inventories

13.4 An entity shall measure inventories at the lower of cost and estimated selling price less costs to complete and sell.

Example—measurement of inventories

Ex 9 **The facts are the same as in example 7 above. However, in this example, the broker-dealer measures inventories at cost.**

The inventories of the commodity broker-dealer must be accounted for at the lower of cost and estimated selling price less costs to sell (see paragraph 13.3(a)).

Cost of inventories

13.5 An entity shall include in the cost of inventories all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

Costs of purchase

13.6 The costs of purchase of inventories comprise the purchase price, import duties and other taxes (other than those subsequently recoverable by the entity from the taxing authorities) and transport, handling and other costs directly attributable to the acquisition of finished goods, materials and services. Trade discounts, rebates and other similar items are deducted in determining the costs of purchase.

Notes

Cost of inventory = costs of purchase + costs of conversion + other costs.

Costs of purchase = purchase price + import duties + other taxes (non-refundable) + other direct costs.

Non-refundable taxes arising from the purchase of inventory are considered to be part of the cost of an asset because they are considered to be directly attributable costs in acquiring it. In contrast, those taxes that are refundable or transferable are not part of the cost of an asset. An example of such a tax, in some jurisdictions, is input value added tax from purchases that is offset against output value added tax from sales.

Examples—costs of purchase

Ex 10 **A retailer imported goods at a cost of CU130,[1] including CU20 non-refundable import duties and CU10 refundable purchase taxes. The risks and rewards of ownership of the imported goods were transferred to the retailer upon collection of the goods from the harbour warehouse. The retailer was required to pay for the goods upon collection. The retailer incurred CU5 to transport the goods to its retail outlet and a further CU2 in delivering the goods to its customer. Further selling costs of CU3 were incurred in selling the goods.**

The cost of purchase is CU125. It includes the costs incurred in bringing the goods to their sale location, ie the CU100 purchase price (CU130 less CU20 import duties less CU10 purchase taxes), the non-refundable import duties (CU20) and the transport to the retail outlet (CU5).

Note: The cost of purchase excludes the refundable purchase taxes paid on acquisition of the goods as the CU10 paid will be refunded to the retailer. It excludes the selling expenses incurred (ie CU2 delivery costs and CU3 other selling costs).

Ex 11 **A retailer buys goods with a list price of CU500 per unit. The supplier awards the retailer a 20% discount on orders of 100 units or more. The retailer buys 100 units in a single order.**

The retailer measures the cost of the inventory at CU40,000, ie 100 units x (CU500 list price less 20% of CU500 volume discount).

Ex 12 **A retailer buys goods with a list price of CU500 per unit. The supplier awards the retailer a 20% discount on orders of 100 units or more. Furthermore, when the retailer has purchased 1,000 or more units in a calendar year, the supplier awards the retailer a further volume discount of 10% of the list price. The additional volume discount applies to all units acquired by the retailer during the calendar year.**

On 1 January 20X1 the retailer buys 1,000 units from the supplier in a single order.

The retailer measures the cost of the inventory at CU350,000, ie 1,000 units x CU350 (CU500 list price less 30% of CU500 volume discount—30% being the sum of the 20% volume discount and the 10% additional volume discount).

[1] In this example, and in all other examples in this module, monetary amounts are denominated in 'currency units' (CU).

Ex 13 **The facts are the same as in example 12. However, in this example, on 1 January 20X1 the entity purchased 800 units from the supplier. Because management considered it unlikely that the entity would purchase another 200 or more units from the same supplier in 20X1, the entity initially measured the inventories at CU320,000 (ie 800 units × CU500 each × 80%).**

On 24 December 20X1 the entity purchased a further 200 units from the supplier.

On 31 December 20X1 150 units acquired from the supplier were unsold (ie in inventories) by the retailer.

The retailer measures the cost of the inventories acquired from the supplier during 20X1 at CU350,000—ie 1,000 units × (CU500 list price less 30% of CU500 volume discount—because all units purchased in the year get the full 30% discount).

The retailer recognises an expense (cost of sales) of CU297,500—ie 850 units sold × (CU500 list price less 30% of CU500 volume discount)—in profit or loss for the year ended 31 December 20X1. It also recognises an asset (inventories) of CU52,500—ie 150 units unsold × (CU500 less 30% of CU500 discount)—in its statement of financial position at 31 December 20X1.

Ex 14 **On 1 November 20X1 a retailer buys 90 units of goods from a supplier for CU500 per unit on its normal credit terms of 60 days' interest-free credit. To encourage early settlement, the supplier offered the retailer a discount of 10% if he paid for the goods within 30 days of buying them.**

On 30 November 20X1 the retailer paid CU40,500 to settle the amount owing for the 90 units purchased from the supplier.

The retailer measures the cost of the inventory at CU40,500, ie 90 units × (CU500 list price less 10% of CU500 early settlement discount).

Ex 15 **A retailer paid CU100 for goods, including CU5 for the goods to be delivered to one of its retail outlets (Outlet A).**

The cost of purchase is CU100, including CU5 costs incurred in bringing the goods to their sale location (Outlet A).

13.7 An entity may purchase inventories on deferred settlement terms. In some cases, the arrangement effectively contains an unstated financing element, for example, a difference between the purchase price for normal credit terms and the deferred settlement amount. In these cases, the difference is recognised as interest **expense** over the period of the financing and is not added to the cost of the inventories.

Notes

This paragraph ensures that the inventory is not overvalued by the inclusion of the interest cost inherent in the purchase arrangement in the cost of inventories.

Examples—costs of purchase

Ex 16 **An entity acquired an item of inventory for CU2,000,000 on two-year interest-free credit.**

The identical item is available in the same market for CU1,654,000 if payment is made within 30 days of the date of purchase (ie normal credit terms).

The cost of the inventory is CU1,654,000 (ie the purchase price for normal credit terms).

Ex 17 **An entity acquired an item of inventory for CU2,000,000 on two-year interest-free credit.**

An appropriate discount rate is 10% per year.

The cost of the inventory is CU1,652,893 (ie the present value of the future payment).

Calculation: CU2,000,000 future payment ÷ $(1.1)^2$.

Note: When purchase price under normal credit terms is not readily available, an entity may consider applying discounting in determining the present value of inventories purchased on a deferred settlement basis.

Costs of conversion

13.8 The costs of conversion of inventories include costs directly related to the units of production, such as direct labour. They also include a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods. Fixed production overheads are those indirect costs of production that remain relatively constant regardless of the volume of production, such as **depreciation** and maintenance of factory buildings and equipment, and the cost of factory management and administration. Variable production overheads are those indirect costs of production that vary directly, or nearly directly, with the volume of production, such as indirect materials and indirect labour.

Notes

Costs of conversion = direct costs + indirect costs (allocated production overheads).

Allocated production overheads = fixed production overheads + variable production overheads.

Unallocated production overheads are not part of the cost of inventory. They are recognised as an expense in the determination of profit or loss of the period in which they were incurred (see paragraph 13.9).

Overhead allocation is addressed in paragraph 13.9.

Example—costs of conversion

Ex 18 **An entity manufactures blocks for use in housebuilding. The manufacturing process involves combining specific proportions of raw materials (ie sand, ash, cement and water). The mixture is then placed into reusable moulds. After standing for three days, the solidified blocks are removed from the moulds. The blocks then undergo drying in a drying room for two weeks before becoming ready for sale. The dried bricks are then stored in the finished-goods storeroom. For ease of access, dry raw materials are stored in a space adjacent to the production area.**

The mixing process is mechanised. However, a manned front-end loader is used to add the dry materials (ie sand, ash and cement) to the mixing machine, which is operated by a dedicated operator. Both factory workers are full-time employees of the entity, remunerated on a fixed annual wage. Casual labourers are employed to remove the blocks from the moulds. They are paid a fixed fee for each block removed from its mould. There are also two managers employed by the entity: the operations manager who supervises the manufacturing process in the factory and the administration manager who is responsible for administration, finance and sales.

The entity operates from premises leased in return for a fixed annual rental. It financed the acquisition of its equipment with a fixed-period loan that bears interest at 8% per year.

The costs of conversion include the direct costs, the fixed production overheads and the variable production overheads.

The direct costs in the brick-manufacturing process include the costs of raw materials (ie sand, ash, cement and water) and the costs of the casual labour that removes the blocks from the moulds.

Fixed production overheads include: the rental of the production area (including the area where dry raw materials are stored and the drying room, but excluding the finished-goods storeroom); the cost of the two machine operators (eg salary and benefits); the cost of the operations manager (eg salary and benefits); and depreciation of the manufacturing equipment (ie the front-end loader, the mixing machine and the moulds). The storage cost incurred in the drying room is necessary in the production process and is included in the costs of conversion (see paragraph 13.13(b)).

The interest on the loan is not a cost of production. It is a finance cost and is recognised as an expense in profit or loss (see paragraph 25.2).

The cost of the administration manager is not a cost of production—this manager is dedicated to selling activities and administration unrelated to the factory. This cost is recognised as an expense in the period in which it is incurred (see paragraph 13.9 and 13.13(c)).

Allocation of production overheads

13.9 An entity shall allocate fixed production overheads to the costs of conversion on the basis of the normal capacity of the production facilities. Normal capacity is the production expected to be achieved on average over a number of periods or seasons under normal circumstances, taking into account the loss of capacity resulting from planned maintenance. The actual level of production may be used if it approximates normal capacity. The amount of fixed overhead allocated to each unit of production is not increased as a consequence of low production or idle plant. Unallocated overheads are recognised as an expense in the period in which they are incurred. In periods of abnormally high production, the amount of fixed overhead allocated to each unit of production is decreased so that inventories are not measured above cost. Variable production overheads are allocated to each unit of production on the basis of the actual use of the production facilities.

Notes

Overheads that are not related to production, such as those incurred in administration, are accounted for as expenses in the period in which they are incurred (see paragraph 13.13(c)).

Examples—allocation of overhead

Ex 19 **An entity incurred fixed production overheads of CU900,000 during a one-month period in which it manufactured 250,000 units of production. When operating at normal capacity the entity manufactures 250,000 units of production per month.**

The entity allocates CU3.6 fixed overhead cost to each unit produced during the month. Calculation: CU900,000 fixed production overhead ÷ 250,000 units (ie normal capacity) = CU3.6 per unit produced.

Ex 20 **The facts are the same as in example 19. However, in this example, the entity manufactured 200,000 units of production during the month.**

The entity allocates CU3.6 fixed overhead cost to each unit produced during the month. Allocated fixed production overheads would be CU720,000, ie 200,000 units produced x CU3.6 allocation rate based on normal production rate (see example 1 above).

The unallocated fixed production overheads of CU180,000 must be recognised as an expense in the profit or loss. Calculation: CU900,000 incurred less CU720,000 allocated to inventory.

Ex 21 **The facts are the same as in example 19. However, in this example, the entity manufactured 300,000 units during the month. This level of production is abnormally high.**

The entity allocates CU3 fixed overhead cost to each unit produced during the month. Calculation: CU900,000 ÷ 300,000 units (actual production) = CU3 per unit produced.

Note: In periods of abnormally high production, the amount of fixed overhead allocated to each unit of production is decreased so that inventories are not measured above cost.

Joint products and by-products

13.10 A production process may result in more than one product being produced simultaneously. This is the case, for example, when joint products are produced or when there is a main product and a by-product. When the costs of raw materials or conversion of each product are not separately identifiable, an entity shall allocate them between the products on a rational and consistent basis. The allocation may be based, for example, on the relative sales value of each product either at the stage in the production process when the products become separately identifiable or at the completion of production. Most by-products, by their nature, are immaterial. When this is the case, the entity shall measure them at selling price less costs to complete and sell and deduct this amount from the cost of the main product. As a result, the **carrying amount** of the main product is not **materially** different from its cost.

Examples—joint products and by-products

Ex 22 **An entity manufactures Chemical A for use in the agriculture industry. The production process requires a mixture of base chemicals followed by a maturation process, and from which Product A and a by-product, C, are produced.**

The total costs of a production run (ie including direct costs and the allocation of overheads) is CU100,000.

Each production run produces:

- **5,000 litres of Product A (sales value = CU250,000); and**
- **1,000 litres of By-product C (sales value = CU2,000).**

The entity accounts for the by-product by deducting its selling price from the cost of the main product. In this example, the costs to complete and sell the by-product are negligible and have been ignored.

The cost per litre produced of A (the product) is CU19.60. Calculation: (CU100,000 total costs less CU2,000 selling price of C) ÷ 5,000 litres of A produced = CU19.60.

Ex 23 **The facts are the same as in example 22. However, in this example, instead of the by-product there is another joint product, B, resulting from the maturation process. Furthermore, the total costs (ie including direct costs and the allocation of overheads) of a production run are CU300,000.**

Each production run produces:

- **5,000 litres of Product A (sales value = CU250,000); and**
- **4,000 litres of Product B (sales value = CU400,000).**

The entity allocates the joint process costs to the products produced on the basis of their relative sales values.

The cost per litre produced of Product A and Product B are CU23.08 and CU46.15 respectively.

Calculation (Product A): CU250,000 selling price of Product A ÷ CU650,000 selling price of the output of the production run x CU300,000 total joint production costs = CU115,385 cost of 5,000 litres of Product A. CU115,385 ÷ 5,000 litres = CU23.08 cost per litre of Product A.

Calculation (Product B): CU400,000 selling price of product B ÷ CU650,000 selling price of the output of the production run x CU300,000 total joint production costs = CU184,615 cost of 4,000 litres of Product B. CU184,615 ÷ 4,000 litres = CU46.15 per litre of Product B.

Ex 24 **The facts are the same as in example 22. However, in this example, the maturation process produces Products A and B and By-product C.**

The total cost (ie including direct costs and the allocation of overheads) of a production run is CU300,000.

The entity accounts for the by-product by deducting its selling price from the cost of the main products. In this example, the costs to complete and sell the by-product are negligible and have been ignored.

Each production run produces:

- **5,000 litres of Product A (sales value = CU250,000);**
- **4,000 litres of Product B (sales value = CU400,000); and**
- **1,000 litres of By-product C (sales value = CU2,000).**

The cost per litre of Products A and B are CU22.92 and CU45.85 respectively.

Calculation (Product A):

CU250,000 (selling price of Product A) ÷ CU650,000 (selling price of the output of the production run (excluding the sales value of the by-product)) = 0.38462 (relative sales percentage).

0.38462 (relative sales percentage) × CU298,000 total costs (CU300,000 cost of joint process less CU2,000, the sales value of By-product C) = CU114,615.

Cost of 5,000 litres of Product A = CU114,615 ÷ 5,000 litres = CU22.92 cost per litre.

Calculation (Product B):

CU400,000 (selling price of Product B) ÷ CU650,000 (selling price of the output of the production run (excluding the sales value of the by-product)) = 0.61538 (relative sales percentage).

0.61538 (relative sales percentage) × CU298,000 total costs (CU300,000 cost of joint process less CU2,000, the sales value of By-product C) = CU183,385.

Cost of 4,000 litres of Product B = CU183,385 ÷ 4,000 litres = CU45.85 cost per litre.

Other costs included in inventories

13.11 An entity shall include other costs in the cost of inventories only to the extent that they are incurred in bringing the inventories to their present location and condition.

Examples—other costs

Ex 25 An entity manufactures individually packaged pens.

The cost of the inventory includes the cost of manufacturing the pens and the individual packaging in which they are presented for sale.

Ex 26 **On 1 January 20X1 an entity accepted an order for 7,000 custom-made corporate gifts.**

On 3 January 20X1 the entity purchased raw materials to be consumed in the production process for CU550,000, including CU50,000 refundable purchase taxes. The purchase price was funded by raising a loan of CU555,000 (including CU5,000 loan-raising fees). The loan is secured by the inventories.

During January 20X1 the entity designed the corporate gifts for the customer. Design costs included:

- **cost of external designer = CU7,000; and**
- **labour = CU3,000.**

During February 20X1 the entity's production team developed the manufacturing technique and made further modifications necessary to bring the inventories to the conditions specified in the agreement. The following costs were incurred in the testing phase:

- **materials, net of CU3,000 recovered from the sale of the scrapped output = CU21,000;**
- **labour = CU11,000; and**
- **depreciation of plant used to perform the modifications = CU5,000.**

During February 20X1 the entity incurred the following additional costs in manufacturing the customised corporate gifts:

- **consumable stores = CU55,000;**
- **labour = CU65,000; and**
- **depreciation of plant used to** manufacturing the customised corporate gifts **= CU15,000.**

The customised corporate gifts were ready for sale on 1 March 20X1. No abnormal wastage occurred in the development and manufacture of the corporate gifts.

What is the cost of the inventory?

Description	*Calculation or reason*	*CU*	*Reference to IFRS for SMEs* Standard
Costs of purchase	Purchase price of raw material—CU550,000 purchase price (including CU50,000 refundable purchase taxes)	500,000	13.6
Loan-raising fee	Included in the measurement of the liability	–	11.18
Costs of purchase	Purchase price of consumable stores	55,000	13.6
Costs of conversion	Direct costs—labour	65,000	13.8
Production overheads	Fixed costs—depreciation	15,000	13.9
Production overheads	Product design costs for specific customer	10,000	13.9
Other costs	(a)	37,000	13.11
Borrowing costs	Recognised as an expense in profit or loss	–	25.2
Total cost of inventories		**682,000**	

(a) Costs of testing product designed for specific customer: CU21,000 material (ie net of the CU3,000 recovered from the sale of the scrapped output) + CU11,000 labour + CU5,000 depreciation.

13.12 Paragraph 12.19(b) provides that, in some circumstances, the change in the **fair value** of the **hedging instrument** in a hedge of fixed interest rate risk or commodity price risk of a commodity held adjusts the carrying amount of the commodity.

Notes

If specified criteria are met (see paragraph 12.16), an entity may designate a hedging relationship between a hedging instrument and a hedged item in such a way as to qualify for hedge accounting. Hedge accounting permits the gain or loss on the hedging instrument and on the hedged item to be recognised in profit or loss at the same time.

If the conditions in paragraph 12.16 are complied with, an entity accounts for its hedged risk of the commodity price risk of a commodity that it holds applying paragraph 12.19. Paragraph 12.19 specifies that the entity shall:

(a) recognise the hedging instrument as an asset or liability and the change in the fair value of the hedging instrument in profit or loss; and

(b) recognise the change in the fair value of the hedged item related to the hedged risk in profit or loss and as an adjustment to the carrying amount of the hedged item.

Hedge accounting is described in detail in Section 12 *Other Financial Instrument Issues*.

Costs excluded from inventories

13.13 Examples of costs excluded from the cost of inventories and recognised as expenses in the period in which they are incurred are:

(a) abnormal amounts of wasted materials, labour or other production costs;

(b) storage costs, unless those costs are necessary during the production process before a further production stage;

(c) administrative overheads that do not contribute to bringing inventories to their present location and condition; and

(d) selling costs.

Examples—costs excluded from inventories

Ex 27 **An entity manufactures cotton sheeting. Total costs in each production run are CU100,000, including a cost of normal wastage of CU2,000. The weakening of operating controls while the owner-manager was away from the plant in hospital caused the wastage of raw materials to increase to CU7,000 per production run.**

The abnormal wastage cost of CU5,000 (CU7,000 less CU2,000) is not included in the cost of inventory but is recognised as an expense.

Ex 28 **An entity stores its finished goods in a rented warehouse.**

The rental expense is not included in the cost of inventory because such storage costs after production are not allocated to inventories—the warehouse costs do not relate to bringing the inventory to the location and condition of sale.

Ex 29 **An entity rented two floors in a building. The first floor is occupied only by the production staff. Half of the second floor is occupied by the entity's administrative staff and the other half is occupied by its sales team.**

The rental expense for the first floor is included in the cost of inventory.

The rental expense for the second floor is not included in the cost of inventory. Administrative overheads and selling costs that do not contribute to bringing inventories to their present location and condition are excluded from the cost of inventories (see paragraph 13.13(c) and (d)).

Ex 30 **A retailer incurred staff costs of CU10,000 for its sales personnel and CU5,000 in advertising costs.**

The salaries of the sales staff and advertising costs are selling costs. Selling costs are not included in the cost of inventory.

Ex 31 **A retailer has four motor vehicles. Vehicle 1 is used to bring goods from the entity's suppliers to its retail outlets. Vehicle 2 is a roadside retail outlet. Vehicle 3 delivers goods to its customers. Vehicle 4 is used by the entity's travelling salesman to visit potential customers.**

Depreciation and maintenance of Vehicle 1 are included in the cost of the inventory that it transports from the entity's suppliers to its retail outlets.

Depreciation and maintenance on the other vehicles do not form part of the cost of inventory. These are selling expenses.

Cost of inventories of a service provider

13.14 To the extent that service providers have inventories, they measure them at the costs of their production. These costs consist primarily of the labour and other costs of personnel directly engaged in providing the service, including supervisory personnel and attributable overheads. Labour and other costs relating to sales and general administrative personnel are not included but are recognised as expenses in the period in which they are incurred. The cost of inventories of a service provider does not include profit margins or non-attributable overheads that are often factored into prices charged by service providers.

Notes

For service entities, service inventory can be viewed as work in progress on a deliverable (eg a report or analysis that is recorded in a service-contract account). Direct labour and other costs of personnel engaged in providing the service, as well as allocated overhead, can be included in the service inventory item.

Cost of agricultural produce harvested from biological assets

13.15 Section 34 requires that inventories comprising agricultural produce that an entity has harvested from its biological assets shall be measured on initial **recognition** at their fair value less estimated costs to sell at the point of harvest. This becomes the cost of the inventories at that date for application of this section.

Notes

Applying paragraph 34.5, an entity shall, at the point of harvest, measure agricultural produce harvested from its biological assets at fair value less estimated costs to sell. Such measurement is the cost of the inventory for the purpose of accounting for the agricultural produce applying Section 13 (see paragraph 13.4).

A farmer who measures agricultural produce at fair value less costs to sell—with changes in fair value included in profit or loss of the period in which the value changes—is, applying paragraph 13.3(a), required to account for such inventory in that manner.

Examples—agricultural produce and biological assets

Ex 32 A vintner processes grapes harvested from its vineyards into wine in a three-year maturation cycle. Each year the entity sells approximately 20% of the grapes harvested to local retailers in the market for table grapes. The vintner grows only one grape variety.

The vines are biological assets accounted for applying paragraph 34.2. Up to the point of harvest, the vintner's grapes are not inventory—they are part of the biological assets (vines) accounted for applying paragraph 34.5.

Irrespective of their intended use (ie wine or table grape), at the point of harvest the grapes are inventory accounted for applying this section. On initial recognition as inventory (ie at the point of harvest), the grapes are recorded at their fair value less estimated costs to sell. In this case, cost could be determined with reference to the market for table grapes in which the entity participates.

Ex 33 A cheesemaker produces cheese using milk from its dairy-farming operation.

The dairy cows are biological assets accounted for applying paragraph 34.2. Up to the point of harvest (milking), the milk is not inventory—it is part of the biological assets (cows) accounted for applying paragraph 34.2.

At the point of harvest (milking), the milk is inventory accounted for applying this section. On initial recognition as inventory (ie at the point of harvest), the milk would be recorded at its fair value less estimated costs to sell applying paragraph 34.5. In this case, cost could be determined with reference to the milk market in which local dairy farmers sell their milk.

Ex 34 **A nut farmer believes that the price of nuts will increase significantly in the months following the crop's harvest. In anticipation of the price increases, the farmer stores the harvested nuts for three months.**

Applying paragraph 34.5, the nuts (agricultural produce) harvested from the entity's biological assets are measured at fair value less costs to sell at the point of harvest.

Scenario 1—the farmer measures inventories at fair value less costs to sell.

In this scenario, after initial recognition, the farmer's inventories of harvested nuts are accounted for at fair value less costs to sell—with changes in fair value included in profit or loss of the period in which the value changes (see paragraph 13.3(a)).

Scenario 2—the farmer does not measure inventories at fair value.

In this scenario, after initial recognition, the farmer's inventories of harvested nuts must be accounted for at the lower of cost (ie fair value less costs to sell at the point of harvest) and selling price less costs to sell at the reporting date (see paragraph 13.4). On initial recognition as inventory (ie at the point of harvest), the nuts are recorded at their fair value less estimated costs to sell.

Techniques for measuring cost, such as standard costing, retail method and most recent purchase price

13.16 An entity may use techniques such as the standard cost method, the retail method or most recent purchase price for measuring the cost of inventories if the result approximates cost. Standard costs take into account normal levels of materials and supplies, labour, efficiency and capacity utilisation. They are regularly reviewed and, if necessary, revised in the light of current conditions. The retail method measures cost by reducing the sales value of the inventory by the appropriate percentage gross margin.

Notes

An entity is allowed to measure the cost of inventories applying the standard cost method, the retail method or most recent purchase price, provided that the cost calculated applying paragraphs 13.5–13.15, 13.17 and 13.18 approximates the actual cost of inventories.

Omissions or misstatements of items are material if they could, individually or collectively, influence the economic decisions of users taken on the basis of the financial statements. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances. The size or nature of the item, or a combination of both, could be the determining factor.

Examples—cost measurement techniques

Ex 35 **A pharmaceutical entity manufactures medicines. The entity uses a standard cost model for management accounting purposes.**

The standard cost computed for management accounting purposes can be used in the entity's general purpose financial statements if the standard cost approximates the actual cost of inventories, measured applying paragraphs 13.5–13.15, 13.17 and 13.18.

Ex 36 **A fast-food operator sells soft drinks at a 150% mark-up on cost (or, in other words, realising a 60% gross margin).**

The fast-food retailer can compute the cost of its inventory for reporting in its general purpose financial statements using the retail method (ie by deducting the gross margin (60%) from the value of the inventory at retail). In this example, the cost of soft drinks determined using the retail method approximate the cost determined using the weighted average cost formulas.

Ex 37 **The facts are the same as in example 36. However, in this example, because of industrial action at its regular soft-drinks supplier, in the week before the end of the reporting period the fast-food retailer acquired soft drinks from various alternative suppliers at higher prices. The entity decided not to pass the higher costs on to its customers (ie it earned significantly less than a 150% mark-up on cost on selling those inventories).**

The fast-food retailer can compute the cost of its inventory for reporting in its general purpose financial statements by deducting the gross margin (60%) from the selling price (ie by applying the retail method of measuring cost). However, if material, it would adjust the cost for the units of inventory acquired from irregular suppliers to the most recent purchase prices.

Cost formulas

13.17 An entity shall measure the cost of inventories of items that are not ordinarily interchangeable and goods or services produced and segregated for specific projects by using specific identification of their individual costs.

Notes

Specific identification of cost means that specific costs are attributed to identified items of inventory. This is the appropriate treatment for items that are segregated for a specific project, regardless of whether they have been bought or produced.

However, specific identification of costs is inappropriate when there are large numbers of items of inventory that are ordinarily interchangeable. In such circumstances, the method of selecting those items that remain in inventories could be used to obtain predetermined effects on profit or loss.

Determining whether items are interchangeable requires judgement. Generally, an assessment is made to determine if the items of inventory could be exchanged with each other without making a difference (eg homogeneous items or items that are indistinguishable from one another).

Example—cost formulas

Ex 38 **A manufacturer of luxury yachts builds bespoke yachts according to its customers' specifications. The entity has the capacity to manufacture three yachts simultaneously in its dockyard. Basic raw materials that can be used interchangeably between all yachts undergoing manufacture are stored in the general storeroom. Materials specific to the manufacture of a particular yacht are stored in a separate storeroom dedicated to the storage of materials that are specific to that yacht.**

The cost of the interchangeable materials stored in the general storeroom is determined using one of the cost formulas described in paragraph 13.18.

The cost of the materials specific to a particular yacht and stored separately in that yacht's storeroom is determined using the specific identification method. In addition, the cost of the finished goods inventory (ie the completed yachts), if any, is determined using the specific identification method.

13.18 An entity shall measure the cost of inventories, other than those dealt with in paragraph 13.17, by using the first-in, first-out (FIFO) or weighted average cost formula. An entity shall use the same cost formula for all inventories having a similar nature and use to the entity. For inventories with a different nature or use, different cost formulas may be justified. The last-in, first-out method (LIFO) is not permitted by this Standard.

Notes

An entity decides to measure the cost of inventories using the FIFO formula or the weighted average cost formula depending on its judgement of the method that leads to a fair presentation of its financial statements.

The FIFO formula assumes that the items of inventory that were purchased or produced first are sold first, and consequently the items remaining in inventory at the end of the period are those most recently purchased or produced.

Under the weighted average cost formula, the cost of each item is determined from the weighted average of the cost of similar items at the beginning of a period and the cost of similar items purchased or produced during the period. The average may be calculated periodically or as each additional shipment is received, depending upon the circumstances of the entity.

The cost of inventories cannot be measured using the LIFO method. The LIFO method treats the newest items of inventory as being sold first, and consequently the items remaining in inventory are recognised as if they were the oldest. This is generally not a reliable representation of actual inventory flows.

Examples—FIFO and average cost formulas

Ex 39 **An entity sells fibre cables. It measures the cost of inventories using the FIFO method. The following movements in inventory occurred in 20X5.**

Date	*Description*	*Units*	*Total cost CU*	*Cost per unit CU*
1 January	Opening balance	1,000	10,000	10
2 February	Sold	(200)	?	?
25 February	Purchased	400	6,000	15
2 March	Purchased	200	4,000	20
25 March	Sold	(900)	?	?
Closing inventories		500		

Using the FIFO cost formula, the cost of the inventories sold in the period and the cost of inventory held at the end of the period of CU11,500 (ie CU2,000[(a)] + CU9,500[(b)]) and CU8,500, respectively, are determined by assuming that units that were purchased first are sold first, as follows:

Date	*Description*	*Units*	*Cost per unit CU*	*Inventory cost CU*	*Costs of goods sold CU*
1 January	Opening balance	1,000	10	10,000	
2 February	Sale	(200)		(2,000)	2,000[(b)]
	Balance	**800**	**10**	**8,000**	
25 February	Purchase	400	15	6,000	
2 March	Purchase	200	20	4,000	
25 March	Sale	(900)		(9,500)	9,500[(b)]
	Balance	**500**		**8,500**	
	Analysed as follows:				
		300	15	4,500	
		200	20	4,000	

(a) 200 units x CU10 per unit.

(b) (800 units x CU10 per unit) + (100 units x CU15 per unit).

Ex 40 The facts are the same as in example 39. However, in this example, the entity allocates the cost of inventories by using the weighted average cost formula calculated as each additional shipment is received (ie the perpetual method or moving weighted average cost method).

Using the perpetual method or weighted average cost formula, the cost of the inventories sold in the period and the cost of inventory held at the end of the period are determined as CU13,574 (ie CU2,000[(a)] + CU11,574[(c)]) and CU6,430, respectively, as each additional shipment is received, as follows:

Date	*Description*	*Units*	*Cost per unit CU*	*Inventory cost CU*	*Costs of goods sold CU*
1 January	Opening balance	1,000	10	10,000	
2 February	Sale	(200)		(2,000)	2,000[(a)]
	Balance	**800**	**10**	**8,000**	
25 February	Purchase	400	15	6,000	
2 March	Purchase	200	20	4,000	
	Average cost	**1,400**	12.86	18,000	
25 March	Sale	(900)			11,574[(c)]
Ending inventory/Cost of goods sold		**500**	**12.86**	**6,430**	13,574

(a) 200 units × CU10 per unit = CU2,000.

(b) CU18,000 ÷ 1,400 units = CU12.86 per unit.

(c) 900 units × CU12.86 = CU11,574.

Ex 41 The facts are the same as in example 39. However, in this example, the entity allocates the cost of inventories by using the weighted average cost formula calculated at the end of the period (ie the periodic method).

Using the weighted average cost formula (calculated using the periodic method) the cost of the inventories sold in the period and the cost of inventory held at the end of the period are CU13,750[(b)] and CU6,250 respectively as follows:

Date	*Description*	*Units*	*Cost per unit CU*	*Inventory cost CU*
1 January	Opening balance	1,000	10	10,000
25 February	Purchase	400	15	6,000
2 March	Purchase	200	20	4,000
Total goods available for sale in the period		**1,600**	**12.50**	**20,000**[(a)]
Total goods sold in the period		(1,1000)	12.50	(13,570)[(b)]
Closing inventory		**500**	**12.50**	**6,250**[(b)]

(a) CU20,000 ÷ 1,600 units = CU12.50 cost per unit.

(b) 1,100 units × CU12.50 = CU13,750 cost of goods sold in the period.

(c) 500 units × CU12.50 = CU6,250 cost of inventory held at the end of the period

Impairment of inventories

13.19 Paragraphs 27.2–27.4 require an entity to assess at the end of each **reporting period** whether any inventories are impaired, ie the carrying amount is not fully recoverable (for example, because of damage, obsolescence or declining selling prices). If an item (or group of items) of inventory is impaired, those paragraphs require the entity to measure the inventory at its selling price less costs to complete and sell and to recognise an **impairment loss**. Those paragraphs also require a reversal of a prior impairment in some circumstances.

Notes

On how to account for the impairment of inventories, see the examples below and paragraphs 27.2–27.4 of Section 27 *Impairment of Assets*.

Recognition as an expense

13.20 When inventories are sold, the entity shall recognise the carrying amount of those inventories as an expense in the period in which the related **revenue** is recognised.

Notes

For the requirements to recognise revenue from the sale of goods, see paragraphs 23.10–23.13.

Examples—expense recognition

Ex 42 **On 14 December 20X5 a machine manufacturer sold an item of machinery it manufactured in 20X5 to a customer for CU8,000 in cash. The cost of the machine was CU5,500 (assume the cost of the machine is incurred in cash). The customer took immediate delivery of the inventory.**

On 14 December 20X5, when the risks and rewards of ownership of the machine passed to the purchaser, the entity must recognise the carrying amount of the inventory as an expense, assuming all the other conditions in paragraph 23.10 are satisfied.

The following entries are made:

Date of manufacturing the machine (inventory)

Dr	Inventories (asset)	CU5,500	
	Cr Cash (asset)		CU5,500

To recognise manufacturing of the goods.

14 December 20X5

Dr	Cash (asset)	CU8,000	
	Cr Revenue (profit or loss)		CU8,000

To recognise the sale of goods.

Dr	Cost of goods sold (profit or loss)	CU5,500	
	Cr Inventories (asset)		CU5,500

To derecognise the inventory sold.

Ex 43 **An entity manufactures pens. In 20X1, finished goods (pen inventories) with a cost of CU100,000 were destroyed by fire. The entity is not insured against fire.**

The CU100,000 impairment loss must, applying Section 27 *Impairment of Assets*, be recognised as an expense in profit or loss in the period in which the fire occurred.

(Note that in this example the inventories were not sold.)

13.21 Some inventories may be allocated to other asset accounts, for example, inventory used as a component of self-constructed property, plant or equipment. Inventories allocated to another asset in this way are accounted for subsequently in accordance with the section of this Standard relevant to that type of asset.

Examples—allocation of inventories to other asset accounts

Ex 44 **A manufacturer of commercial bearings holds a store of bespoke self-manufactured bearings specific to its heavy machines (ie the bearings do not have an alternative use). The bespoke bearings are expected to be used for more than one period.**

The bespoke bearings are initially recognised as equipment (not inventories). After initial recognition, when the bespoke bearings are consumed in the production process, the carrying amount of the bespoke bearings forms part of the cost of the inventories of commercial bearings (ie the depreciation of the bespoke bearings forms part of the cost of the inventories of commercial bearings). Thus, the bespoke bearings are recognised as an expense in profit or loss when the revenue from the sale of the commercial bearings is recognised (assuming the inventories are not impaired before they are sold) (see Section 17 *Property, Plant and Equipment*).

Ex 45 **An entity manufactures hammers for sale to its customers. However, it uses some of the hammers that it produces as equipment in its production process.**

On initial recognition, the hammers manufactured for use in the manufacturing process are recognised as equipment (not inventories). After initial recognition, the carrying amount of those hammers (ie hammers that are equipment) forms part of the cost of the inventories of hammers when they are consumed in the production process (ie the depreciation of the equipment hammers forms part of the cost of the hammer inventory). Thus, the equipment hammers are recognised as an expense when the revenue from the sale of the inventory hammers is recognised (assuming the inventories are not impaired before they are sold).

Disclosures

13.22 An entity shall disclose the following:

(a) the **accounting policies** adopted in measuring inventories, including the cost formula used;

(b) the total carrying amount of inventories and the carrying amount in classifications appropriate to the entity;

(c) the amount of inventories recognised as an expense during the period;

(d) impairment losses recognised or reversed in profit or loss in accordance with Section 27 *Impairment of Assets*; and

(e) the total carrying amount of inventories pledged as security for **liabilities**.

Examples—disclosures

Ex 46 **Extract from notes to Entity A's financial statements for the year ended 31 December 20X2:**

Note 1 Accounting policies

Inventories

Inventories are measured at the lower of cost and estimated selling price less costs to complete and sell. The cost of perishable produce is calculated using the first-in, first-out (FIFO) method. The weighted average cost formula is used for all other inventories.

Note 10 Inventories

	20X2	*20X1*
	CU	*CU*
Finished goods	10,000	15,000
Work in process	1,000	500
Consumable stores	20,000	18,000
Raw materials	60,000	60,000
Total carrying amount	**91,000**	**93,500**

The cost of goods sold during 20X2 is CU845,000 (20X1: CU800,000). Impairment loss in 20X2 amounted to CU45,000 caused by flood-damaged raw materials (20X1: nil).

At 31 December 20X2 CU30,000 (20X1: CU30,000) of the entity's raw materials was pledged as security for a CU20,000 loan from Bank A.

SIGNIFICANT ESTIMATES AND OTHER JUDGEMENTS

Applying the requirements of the *IFRS for SMEs* Standard to transactions and events often requires the exercise of judgement, including making estimates. Information about significant judgements made by an entity's management and key sources of estimation uncertainty are useful when assessing an entity's financial position, performance and cash flows. Consequently, in accordance with paragraph 8.6, an entity must disclose the judgements—apart from those involving estimates—that its management has made when applying the entity's accounting policies and that have the most significant effect on the amounts recognised in the financial statements.

Furthermore, applying paragraph 8.7, an entity must disclose information about the key assumptions concerning the future, and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

Other sections of the *IFRS for SMEs* Standard require disclosure of information about particular judgements and estimation uncertainties.

Classification

Inventories are assets that are held for sale in the ordinary course of business, in the process of production for such sale or in the form of materials or supplies to be consumed in the production process or in the rendering of services. In most cases little difficulty is encountered in determining whether an asset is an item of inventory. However, significant judgement is required to classify some items of inventory. For example:

- Spare parts are usually classified as inventory. However, major spare parts are property, plant and equipment when an entity expects to use them during more than one period. Similarly, if the spare parts can be used only in connection with an item of property, plant and equipment, they are property, plant and equipment (see Section 17).
- Land or buildings (or both) acquired with mixed intentions may be classified as either inventory, investment property or property, plant and equipment. Furthermore, reclassification is required when the purpose for which the fixed property is held changes.

Measurement

An entity shall measure inventories at the lower of cost and estimated selling price less costs to complete and sell. In most cases, little difficulty is encountered in measuring the cost of inventory. However, significant judgement is required to measure some items of inventory.

For example, judgement may be required when:

- determining the extent to which overheads and other costs are included in inventory (see paragraph 13.9).
- determining normal capacity for the allocation of fixed production overheads (see paragraph 13.9).
- determining the amount of some items of fixed production overheads (eg depreciation of property, plant and equipment (see Section 17)).
- differentiating between the levels of normal wastage and abnormal wastage (see paragraph 13.13(a)).
- determining the most appropriate basis for allocating the cost of joint products, particularly when there is no market for joint products at the point when the products become separately identifiable and, in the case of multiple joint products, where some of the joint products exit the joint production process at different stages (see paragraph 13.10).

As discussed in Section 27, significant judgements in accounting for the impairment of inventory may include: assessing whether there is any indication that an item of inventory may be impaired. And when there is an indication that the inventory may be impaired, determining the selling price less cost to complete and sell the inventory.

COMPARISON WITH FULL IFRS STANDARDS

When accounting for and reporting inventories for periods beginning on 1 January 2017, the main differences between the requirements of full IFRS Standards (see IAS 2 *Inventories*) and the *IFRS for SMEs* Standard (see Section 13 *Inventories*) are:

- The *IFRS for SMEs* Standard is drafted in simpler language than that used in full IFRS Standards;
- IAS 23 *Borrowing Costs* requires borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset (including some inventories) to be capitalised as part of the cost of the asset. For cost-benefit reasons, Section 25 *Borrowing Costs* of the *IFRS for SMEs* Standard requires such costs to be charged to expense.

TEST YOUR KNOWLEDGE

Test your knowledge of the requirements for accounting and reporting inventories applying the *IFRS for SMEs* Standard by answering the questions provided.

You should assume that all amounts mentioned are material.

Once you have completed the test, check your answers against those set out beneath it.

Mark the box next to the most correct statement.

Question 1

Inventories are defined as:

☐ (a) assets held for sale in the ordinary course of business, in the process of production for such sale, or in the form of materials or supplies to be consumed in the production process or in the rendering of services.

☐ (b) assets held for sale, in the process of production, or in the form of materials or supplies to be consumed in the production process.

☐ (c) tangible assets held for sale in the ordinary course of business, in the process of production, or in the form of materials or supplies to be consumed in the production process or in the rendering of services.

Question 2

Inventories must be measured at:

☐ (a) cost.

☐ (b) the lower of cost and estimated selling price less costs to complete and sell.

☐ (c) the lower of cost and fair value less costs to complete and sell.

Question 3

The cost of inventories is the sum of:

☐ (a) costs of purchase and costs of conversion.

☐ (b) direct costs, indirect costs and other costs (allocated production overheads).

☐ (c) costs of purchase, costs of conversion (eg allocated production overheads) and other costs incurred in bringing the inventories to their present location and condition.

Question 4

The cost of inventories does not include:

☐ (a) salaries of factory staff.

☐ (b) storage costs necessary in the production process before a further production stage and selling costs.

☐ (c) abnormal amounts of wasted materials and selling costs.

Question 5

An entity must assign the cost of inventories by:

☐ (a) using the LIFO cost formula.

☐ (b) using specific identification of individual costs for inventories that are not ordinarily interchangeable and, for inventories that are ordinarily interchangeable, the first-in, first-out (FIFO) method or the weighted average cost formula.

☐ (c) specific identification of individual costs for inventories that are ordinarily interchangeable, and, for inventories that are not ordinarily interchangeable, the first-in, first-out (FIFO) method or the weighted average cost formula.

Question 6

Consumable stores (ie supplies to be consumed in the production process) are:

☐ (a) inventories.

☐ (b) property, plant and equipment (see Section 17).

☐ (c) investment property (see Section 16).

☐ (d) intangible assets (see Section 18).

Question 7

On 1 January 20X1 an entity acquired goods for sale in the ordinary course of business from Company A, a new entrant in the market, for CU100,000, including CU5,000 refundable purchase taxes. In order to attract a larger customer base, Company A sells goods on terms including interest-free credit for one year. In acquiring the goods, transport charges of CU2,000 were incurred: these were due on 1 January 20X1. Other suppliers within the market offer the same goods at the same price but on a cash-on-delivery basis.

An appropriate discount rate is 10% per year.

The entity shall measure the cost of inventories at:

☐ (a) CU102,000.

☐ (b) CU97,000.

☐ (c) CU88,364.

☐ (d) CU107,000.

Question 8

On 1 January 20X1 an entity acquired 100 units of goods for sale in the ordinary course of business for CU100,000. On 1 March 20X1 20 further units were acquired for CU20,400. On 1 August 20X1 30 units were sold for CU33,000. The entity assigns the cost of inventories by using the first-in, first-out (FIFO) formula.

On 31 December 20X1 the entity must measure the carrying amount of the 90 units of goods at:

☐ (a) CU100,000.

☐ (b) CU90,000.

☐ (c) CU90,400.

☐ (d) CU91,800.

Question 9

A retailer of perishable produce seeks to avoid obsolescence by arranging its produce in such a way that customers are most likely to purchase the oldest inventory first. The cost formula that is most appropriate for the entity is:

☐ (a) first-in, first-out (FIFO).

☐ (b) last-in, first-out (LIFO).

☐ (c) weighted average cost.

☐ (d) specific identification.

Question 10

A property developer must classify properties that it holds for sale in the ordinary course of business as:

☐ (a) inventory.

☐ (b) property, plant and equipment.

☐ (c) a financial asset.

☐ (d) investment property.

Module 13—Inventories

Answers

Q1 (a)—see paragraph 13.1.
Q2 (b)—see paragraph 13.4.
Q3 (c)—see paragraph 13.5.
Q4 (c)—see paragraph 13.13.
Q5 (b)—see paragraphs 13.17 and 13.18.
Q6 (a)—see paragraph 13.1(c).
Q7 (c)—calculation: (CU100,000 - CU5,000) ÷ 1.1 = CU86,364. CU86,364 + CU2,000 = CU88,364.
Q8 (c)—calculation: 70 units × CU1,000 each = CU70,000 (cost of the remaining units purchased on 1 January).
CU70,000 + CU20,400 (cost of the units purchased on 1 March) = CU90,400.
Q9 (a)—see paragraph 13.18.
Q10 (a)—see paragraph 13.1(a).

APPLY YOUR KNOWLEDGE

Apply your knowledge of the requirements for accounting and reporting inventories applying the *IFRS for SMEs* Standard by completing the case studies provided.

Once you have completed the case studies, check your answers against those set out beneath it.

Case study 1

SME A began operations in 20X1. In 20X1 it incurred the following expenditures when purchasing the raw materials for its product:
purchase price of the raw materials = CU30,000;

import duty and other non-refundable purchase taxes = CU8,000;

refundable purchase taxes = CU1,000;

freight costs for bringing the goods from the supplier to the factory's storeroom for raw materials = CU3,000;

costs of unloading the materials into the storeroom for raw materials = CU20; and

packaging = CU2,000.

On 31 December 20X1 SME A received a CU530 volume rebate from a supplier for purchasing more than CU15,000 from the supplier during the year.

SME A incurred the following additional costs in the production run:
salary of the machine workers in the factory = CU5,000;

salary of factory supervisor = CU3,000;

depreciation of the factory building and equipment used for production process = CU600;

consumables used in the production process = CU200;

depreciation of vehicle used to transport the goods from the storeroom for raw materials to the machine floor = CU400;

factory electricity usage = CU300;

factory rental = CU1,000; and

depreciation of the entity's vehicle used by the factory supervisor (50% for official use and 50% for personal use) = CU200 (private use of the vehicle is an employee benefit).

During 20X1 SME A incurred the following administrative expenses:
depreciation of the administration building = CU500;

depreciation and maintenance of vehicles used by the administrative staff = CU150; and

salaries of the administrative personnel = CU3,050.

Of the administrative expenses, 20% are attributable to administering the factory. The rest of those expenses are attributable, in equal proportion, to the sales and other non-production operations (eg financing, tax and corporate secretarial functions).

In 20X1 SME A incurred the following selling expenses:
advertising costs = CU300;

depreciation and maintenance of vehicles used by the sales staff = CU100; and

salaries of the administrative personnel = CU6,000.

Prepare the accounting entries to record the inventory cost in the accounting records of SME A.

Answer to case study 1

During 20X1

Dr	Inventory	CU42,490[(a)]	
	Cr Cash		CU42,490

To recognise the cost of raw materials purchased.

Dr	Inventory	CU11,240[(b)]	
	Cr Cash (cost of direct labour)		CU5,000
	Cr Property, plant and equipment (accumulated depreciation—factory equipment)		CU600
	Cr Property, plant and equipment (accumulated depreciation—raw-materials delivery vehicle)		CU400
	Cr Cash (cost of electricity used)		CU300
	Cr Property, plant and equipment (accumulated depreciation—factory supervisor's vehicle)		CU200
	Cr Cash (factory management's salaries)		CU3,000
	Cr Cash (factory rental)		CU1,000
	Cr Cash (administrative salaries attributable to the factory)		CU610
	Cr Property, plant and equipment (attributable portion of accumulated depreciation—administration building)		CU100
	Cr Property, plant and equipment (attributable portion of accumulated depreciation—administration vehicles)		CU30

To recognise the costs of conversion.

Dr	Inventory	CU200[(b)]	
	Cr Inventory (consumable stores)		CU200

To recognise the costs of consumable stores inventory consumed.

The calculations and explanatory notes below do not form part of the answer to this case study:

The total cost of inventories = costs of purchase + costs of conversion = CU53,930 (ie CU42,490 + CU11,240 + CU200).

Costs of purchase = CU42,490.[(a)] (Refer to paragraphs 13.6 and 13.7 of the *IFRS for SMEs* Standard.)

Costs of conversion = CU11,440.[(b)] (Refer to paragraph 13.8 of the *IFRS for SMEs* Standard.)

(a) Breakdown of costs of purchase—acquisition of raw materials to be applied in production.

Description	*CU*
Purchase price	30,000
Import duty and other non-refundable purchase taxes	8,000
Freight costs for bringing the goods to the factory storeroom	3,000
Cost of unloading the raw materials into the storeroom	20
Packaging	2,000
Less: trade discounts, rebates and subsidies	(530)
Cost of purchase	**42,490**

(Refundable taxes are not part of the cost of inventories.)

(b) Breakdown of costs of conversion—inventories sent for factory for initial production process.

Description	*CU*
Direct labour	5,000
Fixed production overheads	
Depreciation and maintenance of factory equipment	600
Depreciation of vehicle used for transporting the goods	400
Depreciation of vehicle used by factory supervisor	200[(c)]
Factory electricity usage	300
Factory management	3,000
Factory rental	1,000
Other costs of administering the factory	
20% of depreciation of administration building	100
20% of depreciation of administration vehicles	30
20% of administrative staff costs	610
Variable production overheads	
Indirect material—consumables	200
(=) Cost of conversion	**11,440**

(c) The total cost of the factory supervisor's car is included because use of the car is part of total remuneration, regardless of use.

Case study 2

SME B manufactures three products—Products A, B and C. The three products are produced simultaneously in a single production process. However, Products A and B require further processing after the joint process before being ready for sale:

	CU
Costs incurred within the joint production process:	
Raw materials	120,000
Consumable stores	10,000
Direct labour costs	50,000
Variable production overheads	45,000
	225,000
Fixed production overheads allocated on the basis of use of services:	55,000
Costs incurred after the joint production process:	
Product A	10,000
Product B	12,000
Units produced	
Product A	400
Product B	400
Product C	350
Total sales value of all units produced	
Product A	120,000
Product B	140,000
Product C	70,000

SME B allocates the joint costs on the relative sales values of each product at the completion of production less the costs to complete each product after the joint production process.[2]

Determine the cost of each unit of Products A, B and C.

[2] Other rational bases of allocating the joint costs between the products are also acceptable provided that the entity applies the basis consistently.

Answer to case study 2

	CU
Raw materials	120,000
Consumable stores	10,000
Direct labour costs	50,000
Variable production overheads	45,000
	225,000
Fixed production overheads allocated to the production run on the basis of use of services	55,000
Total joint costs	**280,000**

	Total	*Product A*	*Product B*	*Product C*
Units produced		400	400	350
	CU	*CU*	*CU*	*CU*
Sale value of units produced	330,000	120,000	140,000	70,000
Less: processing cost after the joint production process	(22,000)	(10,000)	(12,000)	–
Sales value less costs of further processing after the joint process	**308,000**	**110,000**	**128,000**	**70,000**
Apportionment of joint costs on relative sales values less costs to complete	280,000	100,000 (a)	116,364 (b)	63,636 (c)
Cost of production after the joint process	22,000	10,000	12,000	–
Cost of finished goods produced	302,000	110,000	128,364	63,636
Number of units produced		400	400	350
Cost per unit produced		**275.00**	**320.91**	**181.82**

The calculations and explanatory notes below do not form part of the answer to this case study:

(a) CU280,000 x (CU110,000 ÷ CU308,000) = CU100,000.

(b) CU280,000 x (CU128,000 ÷ CU308,000) = CU116,363.

(c) CU280,000 x (CU70,000 ÷ CU308,000) = CU63,636.

Case study 3

In January 20X7 SME Z began retailing Product X.
SME Z purchases and sales of Product X during 20X7 are:

		Purchases		***Sales***	
	Units	*Cost per unit*	*Cost*	*Sale*	*Revenue*
		CU	*CU*	*Units*	*CU*
1 January	5,000	10	50,000		
1 February	2,000	11	22,000		
28 February				2,000	24,000
1 March	3,000	11	33,000		
1 April	2,500	12	30,000		
30 April				5,000	70,000
30 June				4,000	52,000
1 July	6,000	12.5	75,000		
1 August	2,500	13.5	33,750		
31 August				3,000	39,000
31 October				1,000	16,000
1 November	3,000	14	42,000		
31 December				5,000	100,000

Determine the cost of inventory for each of the sales made during 20X7 and the cost of the inventories asset at 31 December 20X7 under each of the following cost formulas:
Part A: First-in, first-out (FIFO); and
Part B: Weighted average (calculated as a moving weighted average).

Answer to case study 3–Part A

FIFO

	Purchased/ (Sold)	*Cost*	*Cost per unit*		*Cost of inventory sold*	*Carrying amount of inventory*
	Units	*CU*	*CU*		*CU*	*CU*
1 January	5,000	50,000	10			50,000
1 February	2,000	22,000	11			72,000
28 February	(2,000)		10	(a)	20,000	52,000
1 March	3,000	33,000	11			85,000
1 April	2,500	30,000	12			115,000
30 April	(5,000)		10 for 3,000 units 11 for 2,000 units	(b)	52,000	63,000
30 June	(4,000)		11 for 3,000 units 12 for 1,000 units	(c)	45,000	18,000
1 July	6,000	75,000	12.50			93,000
1 August	2,500	33,750	13.50			126,750
31 August	(3,000)		12 for 1,500 units 12.5 for 1,500 units	(d)	36,750	90,000
31 October	(1,000)		12.50	(e)	12,500	77,500
1 November	3,000	42,000	14			119,500
31 December	(5,000)		12.5 for 3,500 units 13.5 for 1,500 units	(f)	64,000	55,500

Closing balance of 4,000 units as at 31 December 20X7 are CU55,500 (1,000 units × CU13.5 each + 3,000 × CU14 each) on first-in, first-out basis.

The calculations and explanatory notes below do not form part of the answer to this case study:

(a) The 2,000 units sold were acquired on 1 January at a cost of CU10 each.

(b) 3,000 of the units sold were acquired on 1 January at a cost of CU10 per unit and the further 2,000 units sold were acquired on 1 February at a cost of CU11 per unit.

(c) 3,000 of the units sold were acquired on 1 March at a cost of CU11 per unit and the further 1,000 units sold were acquired on 1 April at a cost of CU12 per unit.

(d) 1,500 of the units sold were acquired on 1 April at a cost of CU12 per unit and the further 1,500 units sold were acquired on 1 July at a cost of CU12.5 per unit.

(e) The 1,000 units sold were acquired on 1 July at a cost of CU12.5 per unit.

(f) 3,500 of the units sold were acquired on 1 July at a cost of CU12.5 per unit and the further 1,500 units sold were acquired on 1 August at a cost of CU13.5 each.

Answer to case study 3–Part B

Weighted average basis (moving weighted average)

	Purchased/ (Sold)	*Cost*		*Cumulative cost of units in closing inventories*	*Closing units*	*Average cost of units in closing inventories*
	Units	*CU*		*CU*	*Units*	*CU*
1 January	5,000	50,000		50,000	5,000	10
1 February	2,000	22,000		72,000	7,000	10.2857
28 February	(2,000)	(20,571)	(a)	51,429	5,000	10.2857
1 March	3,000	33,000		84,429	8,000	10.5536
1 April	2,500	30,000		114,429	10,500	10.898
30 April	(5,000)	(54,490)	(b)	59,939	5,500	10.898
30 June	(4,000)	(43,592)	(c)	16,347	1,500	10.898
1 July	6,000	75,000		91,347	7,500	12.1796
1 August	2,500	33,750		125,097	10,000	12.5097
31 August	(3,000)	(37,529)	(d)	87,568	7,000	12.5097
31 October	(1,000)	(12,510)	(e)	75,058	6,000	12.5097
1 November	3,000	42,000		117,058	9,000	13.0064
31 December	(5,000)	(65,032)	(f)	52,026	4,000	13.0064

Closing balance of 4,000 units as at 31 December 20X7 are CU52,026 on a moving average basis.

The calculations and explanatory notes below do not form part of the answer to this case study:

(a) (CU20,571) = 2,000 units x CU10.2857 per unit.

(b) (CU54,490) = 5,000 units x CU10.898 per unit.

(c) (CU43,592) = 4,000 units x CU10.898 per unit.

(d) (CU37,529) = 3,000 units x CU12.5097 per unit.

(e) (CU12,510) = 1,000 units x CU12.5097 per unit.

(f) (CU65,032) = 5,000 units x CU13.0064 per unit.