2

Accounting for the Value of Inventories

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2

Learning Outcomes

After completing this chapter, you should be able to:

- distinguish between the historical cost of an asset and the economic value of an asset to an organisation;
- apply first-in-first-out (FIFO), last-in-first-out (LIFO) and average cost (AVCO) methods of accounting for stock, calculating stock values and related gross profit;
- explain why first-in-first-out (FIFO) is essentially a historical cost method, while last-in-first-out (LIFO) approximates economic cost.

2.1 Introduction

In this chapter, you will learn about the different methods that can be used to value inventory and the impact of each of these on the profit reported for the period.

The valuation of inventory, although a cost accounting function, is also required for financial accounting and you should be aware that the regulations concerning the valuation of inventory which apply to financial accounting may be a significant influence in determining the valuation method used.

All of the inventory valuation methods described in this chapter can be applied to finished goods items ready for sale as well as to raw materials held in stores for use in production.

2.2 Valuing inventory at cost

The general principle is that inventory should be valued at cost. However, it can sometimes be difficult to determine which cost should be used. Have a look at the following example.

Example: Which cost should be used?

The following example illustrates the problem of determining the cost of the inventory held at a particular time. During September the following items were purchased and issued from stores.

September 1	Opening balance		Nil
	Bought	100 units	@ £5.00 each
2	Issued	50 units	
10	Bought	50 units	@ £5.50 each
20	Issued	60 units	
27	Bought	100 units	@ £5.60 each

It is easy to calculate the quantity of items remaining in the stores on 27 September by comparing the total quantity purchased (250) with the total number issued from stores (110). The closing inventory quantity is therefore 140 units (250 – 110). However what is the cost of the items in inventory?

Unless each item is individually marked with the price at which it was bought and the balance is identified by individual items at individual prices, it is difficult to know what value should be placed on the inventory items.

This method of individual pricing does exist (it is known as the *specific price* method), but because of the cost of operating such a system it is unsuitable for all but very expensive items where the inventory quantities and rates of usage are low. Alternative methods are used instead, each of which will now be explained using the data from the above example.

2.3 First in, first out (FIFO)

This method assumes for valuation purposes that the items received earliest are those which are issued first. This does not necessarily mean that these are the items which have physically been issued first.

A stores ledger record is maintained for each inventory item. This record shows the volume and value of the receipts and issues made during the period, and the remaining balance in stores after each receipt or issue.

The stores ledger record of the transactions using this method would appear as follows:

Stores ledger record

	Receipts			*Issues*			*Balance*		
Date	*Qty*	*Price*	£	*Qty*	*Price*	£	*Qty*	*Price*	£
September									
1							Nil		Nil
1	100	5.00	500				100	5.00	500
2				50	5.00	250	50	5.00	250
10	50	5.50	275				50	5.00	250
							50	5.50	275
							100		525
20				50	5.00	250			
				10	5.50	55			
				60		305	40	5.50	220
27	100	5.60	560				40	5.50	220
							100	5.60	560
							140		780

Note that the issue made on 20 September is valued as 50 units at £5 each plus 10 units at £5.50 each. This is because the earliest price paid for any of the remaining inventory held at the time of issue was £5.

You should note the clarity of the entries, particularly those relating to the closing balances at the end of each day which are stated in chronological order.

You must practice producing neat workings for your stores ledger record. Speed and accuracy are essential in the assessment and although you will not be awarded marks for your workings they will help to ensure that you arrive at the correct answer.

2.4 Last in, first out (LIFO)

This method assumes for valuation purposes that the latest price paid for items received is the one to be used to price issues. Using this method the stores ledger record of the same transactions would appear as follows:

Stores ledger record

	Receipts			*Issues*			*Balance*		
Date	*Qty*	*Price*	£	*Qty*	*Price*	£	*Qty*	*Price*	£
September									
1							Nil		Nil
1	100	5.00	500				100	5.00	500
2				50	5.00	250	50	5.00	250
10	50	5.50	275				50	5.00	250
							50	5.50	275
							100		525
20				50	5.50	275			
				10	5.00	50			
				60		325	40	5.00	200
27	100	5.60	560				40	5.00	200
							100	5.60	560
							140		760

Using this valuation method, the first 50 items issued on 20 September are valued at £5.50 per unit. This is because the latest price paid at that date was the price paid for the delivery received on 10 September, which was £5.50 per unit. The remaining 10 units are valued at the price of £5 paid for the delivery received on 1 September.

2.5 Cumulative weighted average (AVCO)

This method calculates a weighted average price each time there is a receipt, using the formula:

$$\text{Weighted average price} = \frac{(\text{Value of inventory b/f} + \text{value of purchases})}{(\text{Quantity of inventory b/f} + \text{quantity purchased})}$$

This average value per unit is then used for all issues until another delivery is received, when the average is recalculated. The stores ledger record of the same transactions using this method is as follows:

Stores ledger record

	Receipts			*Issues*			*Balance*		
Date	*Qty*	*Price*	£	*Qty*	*Price*	£	*Qty*	*Price*	£
September									
1							Nil		Nil
1	100	5.00	500				100	5.00	500
2				50	5.00	250	50	5.00	250
10	50	5.50	275				100	5.25	525
20				60	5.25	315	40	5.25	210
27	100	5.60	560				140	5.50	770

Note that the price per unit on 10 September is calculated by the formula shown above:

$$\frac{£(250 + 275)}{50 + 50} = £5.25 \text{ per unit}$$

The average value per unit of £5.50 calculated on 27 September (£770/140) would be used to value all issues after this date until another receipt occurs when the average would be recalculated.

2.6 Comparison of FIFO, LIFO and AVCO

The following table shows the closing inventory valuations and values of issues using each of the three methods. In each case the value of the issues is obtained by totalling the individual issue valuations.

	Closing inventory valuation £	*Value of issues* £
FIFO	780	555
LIFO	760	575
AVCO	770	565

Points to note about the different inventory valuation methods include the following:

- The values for AVCO in the table lie between those for LIFO and FIFO. This should always occur because AVCO is an averaging method.
- Both LIFO and FIFO require records to be kept of each batch of purchases so that the appropriate price may be attached to each issue.
- Price fluctuations are smoothed out with the AVCO method which makes the data easier to use for decision-making, although the rounding of the unit value might cause some difficulties.
- Many management accountants would argue that LIFO provides more relevant information for decision-making because it uses the most up-to-date price.
- However LIFO may sometimes confuse managers, since the pricing method represents the opposite to what is happening in reality, that is, the items in store will probably be physically issued on a FIFO basis.

The overriding consideration for the internal cost accounting system is that the information should be useful for management purposes.

Let us look in more detail at the assertion that LIFO provides more relevant information for decision-making. If we assume that the items in the above example are items for resale, then using the FIFO method the cost of the items issued on 20 September was £305. If a customer offered you £315 for them you might well accept the offer on the basis that you had made £10 profit. If the LIFO method is used the offer would be rejected because the cost of the issue is stated to be £325 and thus to accept the customer's offer would be to make a loss. Which is correct?

It is reasonable to believe that in order to make a profit you should be able to replace the items that you have sold and still have some of the sale proceeds left over. In this example, the latest price paid on 10 September was £5.50 per unit and with the benefit of hindsight we know that the price on 27 September is £5.60 per unit. It is reasonable therefore to expect that the cost of replacing the items sold will be at least £5.50 per unit, which totals £330.

Thus, it can be seen that the use of the FIFO method would lead you to a decision which would cause you to be unable to replace the items sold with the sale proceeds received. The use of the LIFO method is thus argued to be better for decision-making.

2.6.1 Historical cost compared with economic cost and economic value

Although we have seen that the LIFO method results in issues from stores being valued at the most recent prices paid, the costs used are still historical costs. By their nature, historical costs are out of date and might not reflect the current value of an item.

The economic value of an asset depends on current circumstances and we have just seen that it can even be misleading to rely on LIFO historical costs when assessing the worth of an item issued from stores. The issue cost was out of date and the company might have had difficulty replacing the item if did not make a sufficiently high charge against profit for the cost of replacement.

If the inflation rate is very high or if purchases of inventory are made only infrequently then even the charges to cost of sales resulting from the LIFO method do not provide a good approximation of economic cost.

However in many circumstances the LIFO method will use up-to-date values, whereas the FIFO method is essentially an historical cost method.

The economic cost of an asset such as an item of material might be measured in terms of the benefit forgone by not using the asset in the 'next best' way; this is its opportunity cost.

For example, an item of material might be obsolete. The 'next best' alternative for this item would be to sell it and the value of this option is its net realisable value. The application of this concept can be seen in the financial accounting rule that inventory items should be valued at the lower of cost and net realisable value.

Thus an asset's economic cost or economic value might be higher or lower than its historical cost, depending on current circumstances.

2.7 Inventory valuation and the effect on gross profit

An important point to realise is that since each of the inventory valuation methods produces a different valuation, the profit reported under each of the methods will be different. An example will help you to see the difference.

Example

Continuing with the example in Section 2.2, suppose that the units issued from inventory are sold direct to the customer for £8 per unit. The gross profit recorded under each of the inventory valuation methods would be as follows:

	FIFO	*LIFO*	*AVCO*
	£	£	£
Sales revenue: 110 × £8	880	880	880
Purchases	1,335	1,335	1,335
Less closing inventory	*780*	*760*	*770*
Cost of goods sold	*555*	*575*	*565*
Gross profit	325	305	315

The prices of receipts are rising during the month. Therefore the FIFO method, which prices issues at the older, lower prices, results in the highest value of closing inventory and the highest profit figure. The AVCO method produces results that lie between those for FIFO and LIFO.

2.8 Periodic weighted average

This method is similar to the cumulative weighted average method described earlier, except that instead of calculating a new average price every time a receipt occurs an average is calculated based on the total purchases for the period. This average is then applied to all issues in the period.

$$\text{Periodic weighted average price} = \frac{\text{cost of opening inventory} + \text{total cost of receipts in period}}{\text{units in opening inventory} + \text{total units received in period}}$$

Using the same data, the periodic weighted average cost per unit is:

$$\frac{(£500 + £275 + £560)}{(100 + 50 + 100)} = \frac{£1,335}{250} = £5.34 \text{ per unit}$$

Every issue is priced at £5.34 per unit. The total value of all issues would be 110 units @ £5.34 = £587.40, leaving a closing inventory of 140 units valued at £747.60.

In an assessment you must always use the *cumulative* weighted average pricing method unless you are specifically instructed to use the periodic weighted average method.

2.9 Materials documentation

2.9.1 Perpetual inventory system

We have seen how a stores ledger record for a particular inventory item shows each receipt and issue from stores as it occurs. This provides a continuous record of the balance of each inventory item and is known as a *perpetual inventory system*.

In practice there are likely to be discrepancies between the actual physical balance in stores and the balance shown on the stores ledger record. For this reason the inventory in stores should be counted on a regular basis and checked against the total shown on the stores ledger record. This ensures that minor discrepancies are corrected as soon as possible and that the stores ledger record provides a reasonably accurate record of available inventory.

2.9.2 Recording the receipt of goods

When goods are delivered by a supplier they will normally be accompanied by a delivery note. It is common for all orders to be delivered to stores (unless there is good reason to have them delivered elsewhere) and for the storekeeper to be responsible for checking the delivery and acknowledging its receipt by signing the supplier's delivery note.

The storekeeper will then raise a *goods received note (GRN)*. This is the document which is used to record the receipt of goods for the purpose of updating the stores ledger record. The information recorded on the GRN will include the quantity, code number and description of the material received, as well as the date of the delivery and the supplier's details.

A copy of the *GRN* will be sent to the purchasing department (so that they know that the goods ordered have actually been delivered) and to the accounts department (so that when the time comes to pay the supplier's invoice the accounts department knows that the goods have been received).

2.9.3 Recording the movement of inventory items

Whether material is issued to production or issued for indirect purposes, it may only be issued from stores against a properly authorised *material requisition*. This document is used to record the issue of material on the stores ledger record.

The information shown on the material requisition will include the quantity, code number and description of the items issued, as well as the date of the issue, the cost of the items issued (based on whatever inventory valuation method is in use: FIFO, LIFO, etc.) and the cost centre or the job number to be charged with the cost of the items issued.

Sometimes, materials may be issued and subsequently found to be surplus to requirements. These will be returned to the stores and this movement of materials must be recorded on a *material returned note*. This ensures that the recorded inventory quantity is increased to its correct level and that the recorded cost value of the materials issued to production is reduced.

This transaction can be thought of as the opposite of an issue to production and the information contained on a material returned note is similar to that on a material requisition note. The returned note will indicate which cost centre or job is to be credited with the cost of the materials returned to stores.

Occasionally, a cost centre might transfer material to another cost centre, without the material first being sent back to the stores. To ensure that the correct cost centre or job is charged with the cost of the materials a *material transfer note* is raised. This note details the material being transferred, giving the same information as a material requisition/material returned note, that is description, quantity, cost and so on. The transfer note also shows which cost centre or job is to be credited with the cost of the material and which is to be debited. The stores ledger record is not altered because the items transferred do not physically return to the stores.

2.10 Summary

Having read this chapter the main points that you should understand are as follows:

1. The stores ledger record for each inventory item shows the quantity, cost and total value of each issue and receipt and of the balance in stores after each movement of inventory.
2. The pricing of issues from inventory has a direct effect on cost of sales, inventory valuations and reported profits.
3. The FIFO method prices issues at the price of the oldest items remaining in stores. The LIFO method prices issues at the price of the items in stores that were received most recently.
4. The weighted average method uses an average price that can be calculated using two different bases: the cumulative weighted average and the periodic weighted average. The cumulative weighted average calculates a new average price every time a new batch is received into stores. The periodic weighted average calculates an average price at the end of each period. Unless you receive instructions to the contrary you should use the cumulative weighted average method in an assessment.
5. The inventory valuation methods can be applied to finished goods for sale as well as to raw materials held in stores for use in production.
6. A number of documents are used to record the receipt and movement of inventory items. These include a goods received note, material requisition, material returned note and a material transfer note.

Revision Questions 2

Question 1 Multiple choice

Data for questions 1.1 and 1.2

P Ltd had an opening inventory value of £2,640 (300 units valued at £8.80 each) on 1 April. The following receipts and issues were recorded during April:

10 April	Receipt	1,000 units	£8.60 per unit
23 April	Receipt	600 units	£9.00 per unit
29 April	Issues	1,700 units	

1.1 Using the LIFO method, what was the total value of the issues on 29 April?

(A) £14,840
(B) £14,880
(C) £14,888
(D) £15,300

1.2 Using the FIFO method, the value of the closing inventory was:

(A) £1,680
(B) £1,760
(C) £1,800
(D) £14,840

1.3 A firm has a high level of inventory turnover and uses the FIFO issue pricing system. In a period of rising purchase prices, the closing inventory valuation is:

(A) close to current purchase prices.
(B) based on the prices of the first items received.
(C) much lower than current purchase prices.
(D) the average of all goods purchased in the period.

1.4 Using the FIFO system for pricing issues from stores means that when prices are rising:

(A) product costs are overstated and profits understated.
(B) product costs are kept in line with price changes.
(C) product costs are understated and profits understated.
(D) product costs are understated and profits overstated.

1.5 During a period of rising prices, which *one* of the following statements is correct?

(A) The LIFO method will produce lower profits than the FIFO method, and lower closing inventory values.
(B) The LIFO method will produce lower profits than the FIFO method, and higher closing inventory values.
(C) The FIFO method will produce lower profits than the LIFO method, and lower closing inventory values.
(D) The FIFO method will produce lower profits than the LIFO method, and higher closing inventory values.

Question 2 Short objective-test questions

2.1 Opening inventory for a particular component at the beginning of April was zero. The following receipts and issues were recorded during April.

April 1	Received 100 components at a price of £6.00 each
April 2	Issued 30 components
April 8	Received 30 components at a price of £6.50 each
April 10	Issued 60 components
April 15	Received 100 components at a price of £6.50 each
April 16	Issued 40 components

The weighted average pricing method is used.
Complete the following boxes.
The total value of the components issued on April 10 was £ ☐.
The cost per component issued on April 16 was £ ☐.

2.2 In a period of rising prices, which of the following statements are *true*? Tick the box for any statement that is true.

☐ (a) Reported profits will be higher with FIFO than with LIFO.
☐ (b) The value of closing inventory will be higher with FIFO than with LIFO.
☐ (c) LIFO would be the preferable method for financial accounting purposes because it uses the oldest price.

2.3 BB imports product U and sells the product to retail customers at a price of £14 per case. BB had no inventory at the beginning of February and during February the following receipts and sales were recorded.

6 February	Received	1,400 cases @ £8.20 per case
15 February	Received	900 cases @ £9.10 per case
20 February	Sold	780 cases
22 February	Received	330 cases @ £9.90 per case
28 February	Sold	860 cases

(a) Using the FIFO method of inventory valuation, the gross profit reported for February would be £ ☐.
(b) Using the LIFO method of inventory valuation, the gross profit reported for February would be £ ☐.

2.4 Which of the following documents will be used to record the receipt of materials from stores by a production cost centre, ready for use in production?

☐ Goods received note
☐ Material requisition

2.5 Tick the correct box below to indicate whether the following statement is true or false. Economic cost is always higher than historical cost.

☐ True
☐ False

2.6 A retailer currently uses the weighted average pricing method to value his inventory.

In a period of rising prices, the retailer decides instead to use the FIFO method. Tick the correct box to complete the statement below.

The gross profit for the period will be:

☐ higher
☐ lower

Question 3 Longer revision question: inventory valuation

Three students, K, L and M, are equal partners in a joint venture which involves them, on a part-time basis, in buying and selling sacks of product F. The transactions for the 3 months ended on 30 June were as stated below. You are to assume that purchases at unit costs given were made at the beginning of each month and that the sales were made at the end of each month at the fixed price of £1.50 per sack.

	Purchases		*Sales*
Month	*Sacks*	*Unit cost*	*Sacks*
		£	
April	1,000	1.00	500
May	500	1.20	750
June	1,000	1.00	200

In July, the student partners held a meeting to review their financial position and share out the profits but there was disagreement because each partner had priced the issues on a different basis. K had used FIFO, L had used LIFO and M had used a weighted average, basing his weighted average on the whole of the 3 months' purchases.

Shown below is an extract from K and L's stores ledger records.

	Receipts			*Sales*			*Balance*		
Month	*Qty*	*Price*	£	*Qty*	*Price*	£	*Qty*	*Price*	£
April	1,000	1.00	1,000	500			500		
May	500	1.20	600	750		A	250		B
June	1,000	1.00	1,000	200		C	1,050		D

Requirements

(a) The values shown as A, B, C and D in K's records, using a FIFO system, would be:

A: £ ☐
B: £ ☐
C: £ ☐
D: £ ☐

(b) The values shown as A, B, C and D in L's records, using a LIFO system, would be:

A: £ ☐
B: £ ☐
C: £ ☐
D: £ ☐

(c) The value of the closing inventory in M's records, using a weighted average based on the whole of the 3 months' purchases, would be £ ☐.

(d) The profit reported by each of the students for the 3-month period would be:

K (FIFO): £ ☐
L (LIFO): £ ☐
M (wt. ave.): £ ☐

(e) The pricing method being used by student M is known as a: (*tick the correct box*)

☐ periodic weighted average method
☐ cumulative weighted average method.

(f) Show how the stores ledger record of student M would appear if he recalculated a revised weighted average price every time sacks are received into stores.

Solutions to Revision Questions 2

Solution 1

- You will need to think carefully when you are selecting the answer for the narrative multiple-choice questions. Read each option slowly and ensure that all aspects of the description are correct before you make your final selection.

1.1 Answer: (B)

With the LIFO method the latest prices are used first to price issues:

	£
600 units from 23 April × £9.00 per unit	5,400
1,000 units from 10 April × £8.60 per unit	8,600
100 units from opening inventory × £8.80 per unit	880
Total	14,880

1.2 Answer: (C)

With the FIFO method the earliest prices are used first to price issues. Therefore, the remaining inventory is valued at the latest prices.

Closing inventory = 200 units × £9 = £1,800

1.3 Answer: (A)

Using FIFO, the inventory will be valued at the latest prices paid for the items. If inventory turnover is high, then the items in stores will have been purchased fairly recently. Therefore, they will be valued at prices which are close to current purchase prices.

1.4 Answer: (D)

FIFO charges cost of production with the price of the oldest items in stores. When prices are rising, the charges made to product costs lag behind current prices. Product costs and charges to cost of sales are therefore understated and profits are overstated.

1.5 Answer: (A)

LIFO charges the latest prices to cost of sales. Therefore, during a period of rising prices the LIFO method will produce a higher cost of sales and a lower profit. Since inventory is valued using the older prices, the LIFO closing inventory values will be lower.

Solution 2

2.1 The total value of the components issued on April 10 was £369.00
The cost per component issued on April 16 was £6.40

Workings:

	Receipts			*Issues*			*Balance*		
Date	*Qty*	*Price*	£	*Qty*	*Price*	£	*Qty*	*Price*	£
1							Nil		Nil
1	100	6.00	600.00				100	6.00	600.00
2				30	6.00	180.00	70	6.00	420.00
8	30	6.50	195.00				100	6.15[1]	615.00
10				60	6.15	369.00	40	6.15	246.00
15	100	6.50	650.00				140	6.40[2]	896.00

Notes

1. $\frac{£420 + £195}{100} = £6.15$

2. $\frac{£246 + £650}{140} = £6.40$

2.2 (a) *True*. The FIFO issues from inventory, to be charged as a part of cost of sales, will be made at the older, lower prices.
(b) *True*. The FIFO closing inventory will be valued at the most recent prices.
(c) *False*. The LIFO valuation method is not acceptable under the accounting standard which regulates the valuation of inventory for financial accounting purposes.

2.3 (a) Using the FIFO method of inventory valuation, the gross profit reported for February would be £9,296.
(b) Using the LIFO method of inventory valuation, the gross profit reported for February would be £8,141.

Workings:
(a) FIFO

	Receipts			*Sales*			*Balance*		
Date	*Qty*	*Price*	£	*Qty*	*Price*	£	*Qty*	*Price*	£
6	1,400	8.20	11,480				1,400	8.20	11,480
15	900	9.10	8,190				1,400	8.20	11,480
							900	9.10	8,190
							2,300		19,670
20				780	8.20	6,396	620	8.20	5,084
							900	9.10	8,190
							1,520		13,274
22	330	9.90	3,267				620	8.20	5,084
							900	9.10	8,190
							330	9.90	3,267
							1,850		16,541
28				620	8.20	5,084	660	9.10	6,006
				240	9.10	2,184	330	9.90	3,267
				860		7,268	990		9,273

Gross profit = (£14 × (780 + 860)) − £(6,396 + 7,268) = £9,296

(b) LIFO

	Receipts			*Sales*			*Balance*		
Date	*Qty*	*Price*	£	*Qty*	*Price*	£	*Qty*	*Price*	£
6	1,400	8.20	11,480				1,400	8.20	11,480
15	900	9.10	8,190				1,400	8.20	11,480
							900	9.10	8,190
							2,300		19,670
20				780	9.10	7,098	1,400	8.20	11,480
							120	9.10	1,092
							1,520		12,572
22	330	9.90	3,267				1,400	8.20	11,480
							120	9.10	1,092
							330	9.90	3,267
							1,850		15,839
28				330	9.90	3,267			
				120	9.10	1,092			
				410	8.20	3,362			
				860		7,721	990	8.20	8,118

Gross profit = (£14 × (780 + 860)) − £(7,098 + 7,721) = £8,141

2.4 The issue of material from stores to a production cost centre will be recorded on a material requisition. A goods received note is used to record the original receipt into stores of goods from the supplier.

2.5 False.
Economic cost can be lower than historical cost. For example a manufacturer might have purchased a certain item of raw material for £20. This is its historical cost. If the material has now become obsolete and can be sold for only £12 this is its economic cost, which is lower than the historical cost.

2.6 If the retailer uses FIFO instead of the weighted average pricing method in a period of rising prices, the gross profit for the period will be higher.

The FIFO method charges to cost of sales the price of the oldest, lower priced goods. The weighted average price charged to cost of sales will be higher because of the effect on the average of the higher prices of items received into inventory most recently. Thus the gross profit will be higher with FIFO than with the weighted average pricing method.

Solution 3

- Probably the best approach is to draft your own rough stores records as workings.
- Remember the need for accuracy; it is your final answer that counts. You will not receive marks for your workings.

(a) A £800
B £300
C £240
D £1,060

Workings: K's records using FIFO

	Receipts			*Sales*			*Balance*		
Month	*Qty*	*Price*	£	*Qty*	*Price*	£	*Qty*	*Price*	£
April	1,000	1.00	1,000	500	1.00	500	500	1.00	500
May	500	1.20	600	500	1.00	500			
				250	1.20	300			
				750		800	250	1.20	300
June	1,000	1.00	1,000	200	1.20	240	50	1.20	60
							1,000	1.00	1,000
							1,050		1,060

(b) A £850
B £250
C £200
D £1,050

Workings: L's records using LIFO

	Receipts			*Sales*			*Balance*		
Month	*Qty*	*Price*	£	*Qty*	*Price*	£	*Qty*	*Price*	£
April	1,000	1.00	1,000	500	1.00	500	500	1.00	500
May	500	1.20	600	500	1.20	600			
				250	1.00	250			
				750		850	250	1.00	250
June	1,000	1.00	1,000	200	1.00	200	1,050	1.00	1,050

(c) £1,092

Workings:

$$\text{Weighted average price for 3 months} = \frac{£(1{,}000 + 600 + 1{,}000)}{1{,}000 + 500 + 1{,}000} = £1.04 \text{ per unit}$$

Value of closing inventory = 1,050 units × £1.04 = £1,092

(d) K (FIFO) £635
L (LIFO) £625
M (wt. ave.) £667

Workings:

	K	*L*	*M*
	£	£	£
Sales (1,450 @ £1.50)	2,175	2,175	2,175
Cost of sales:			
Purchases	2,600	2,600	2,600
Less closing inventory	1,060	1,050	1,092
	1,540	1,550	1,508
Profit	635	625	667

(e) The pricing method being used by student M is known as a *periodic weighted average method*.

M's weighted average is based on the whole of the 3 month's purchases, so this is a periodic average. The method that recalculates the weighted average price every time a receipt occurs is called the cumulative or perpetual weighted average method.

(f) This is the perpetual weighted average method.

Remember that you should use the perpetual weighted average in the assessment unless you are specifically told otherwise.

	Receipts			*Sales*			*Balance*		
Month	*Qty*	*Price*	£	*Qty*	*Price*	£	*Qty*	*Price*	£
April	1,000	1.00	1,000				1,000	1.00	1,000
April				500	1.00	500	500	1.00	500
May	500	1.20	600				1,000	1.10[1]	1,100
May				750	1.10	825	250	1.10	275
June	1,000	1.00	1,000				1,250	1.02[2]	1,275
June				200	1.02	204	1,050	1.02	1,071

1. £1,100/1,000 units = £1.10 weighted average price
2. £1,275/1,250 units = £1.02 weighted average price