Appendix 1 Further reading

This book contains sufficient material for most first-year modules in accounting for non-accounting students. Some students may require additional information, however, and it may be necessary for them to consult other books when attempting exercises set by their tutors.

There are many very good accounting books available for *accounting* students, but they usually go into considerable technical detail. *Non-accounting* students must use them with caution otherwise they will find themselves completely lost. In any case, non-accounting students do not need to process vast amounts of highly technical data. It is sufficient for their purpose if they have an understanding of where accounting information comes from, why it is prepared in that way, what it means and what reliance can be placed on it.

Bearing these points in mind, the following books are worth considering.

Financial accounting

Elliott, B. and Elliott, J. (2008) *Financial Accounting and Reporting*, 11th edn, Financial Times/Prentice Hall, Harlow. This is an excellent textbook that is now into its eleventh edition. It should be a very useful reference book for non-accounting students.

Holmes, G. and Sugden, A. (2008) *Interpreting Company Reports and Accounts*, 10th edn, Financial Times/Prentice Hall, Harlow. A well-established text that deals with company financial reporting in some detail.

Wood, F. and Sangster, A. (2008) *Business Accounting*, Volumes 1 and 2, 11th edn, Financial Times/Prentice Hall, Harlow. Wood is the master accounting-textbook writer. His books can be recommended with absolute confidence.

Management accounting

Arnold, J. and Turley, S (1996) *Accounting for Management Decisions*, 3rd edn, Financial Times Prentice Hall, Harlow. This book is aimed at first- and second-year undergraduate and professional courses. Non-accounting students should be able to follow it without too much difficulty.

Drury, C. (2008) *Management and Cost Accounting*, 7th edn, Cengage Learning, London. This book has become the established British text on management accounting. It is a big book in every sense of the word. Non-accounting students should only use it for reference.

Hopper, T., Scapen, R.W. and Northcott, D. (eds) (2007) *Issues in Management Accounting*, 3rd edn, Prentice-Hall Europe, Harlow. This book will be useful for those students who are interested in current developments in management accounting. However, be warned! It is written in an academic style and some of the chapters are very hard going. It is also now somewhat dated.

Horngren, C.T., Foster, G., Datar, S. and Rajan, M. (2008) *Cost Accounting: International Version: A Managerial Emphasis*. 13th edn, Prentice Hall, Harlow. Horngren is a long-established American text. It will be of benefit to non-accounting students mainly for reference purposes.

Smith, J.A. (ed.) (2007) *Handbook of Management Accounting*, 4th edn, CIMA Publishing/Elsevier, Oxford. This handbook contains 54 chapters on an extremely wide range of management accounting topics. It should be useful for non-accounting students when preparing essays or reports on emerging issues in management accounting.

Appendix 2 Discount table

Present value of £1 received after *n* years discounted at *i* %

i / *n*	1	2	3	4	5	6	7	8	9	10
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513
4	0.9610	0.9238	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830
5	0.9515	0.9057	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209
6	0.9420	0.8880	0.8375	0.7903	0.7462	0.7050	0.6663	0.6302	0.5963	0.5645

i / *n*	11	12	13	14	15	16	17	18	19	20
1	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8547	0.8475	0.8403	0.8333
2	0.8116	0.7929	0.7831	0.7695	0.7561	0.7432	0.7305	0.7182	0.7062	0.6944
3	0.7312	0.7118	0.6931	0.6750	0.6575	0.6407	0.6244	0.6086	0.5934	0.5787
4	0.6587	0.6355	0.6133	0.5921	0.5718	0.5523	0.5337	0.5158	0.4987	0.4823
5	0.5935	0.5674	0.5428	0.5194	0.4972	0.4761	0.4561	0.4371	0.4190	0.4019
6	0.5346	0.5066	0.4803	0.4556	0.4323	0.4104	0.3898	0.3704	0.3521	0.3349

Appendix 3 Answers to activities

Chapter 1

1.2 (a) account (b) double-entry book-keeping (c) profit (d) entity (e) Industrial Revolution.

1.3 (a) false (b) false (c) true (d) true (e) false.

1.4 The AAT. It is not a chartered body and it is not considered to be one of the six major professional accountancy bodies.

1.5

Type of entity	*Advantage*	*Disadvantage*
Sole trader	The owner has total control of the business	It may be difficult to obtain sufficient finance
Partnership	The management of the business is shared	If the business is unsuccessful the partners may go bankrupt
Limited liability company	The liability of the owners is restricted	Certain financial information about the company has to be disclosed publicly

1.6 Broadcasting: quasi-governmental.
Famine relief: social organization.
Postal deliveries: quasi-governmental.
Social services: local government.
Work and pensions: central government.

Chapter 2

2.2 *Advantages*

Easy to compare this year's events with those that happened a year ago.
Annual comparisons are commonly made in other spheres and therefore acceptable.
A year reflects the normal climatic seasonal pattern.

Disadvantages
It is an artificial period of time.
It is either too short or too long for certain types of businesses.
Some of the information included in the annual accounts could be well over 12 months old by the time it is reported and it may by then be out of date.

2.3 Revenue should only be recognized when there is a high possibility that it will exceed the costs to date plus costs to be incurred. Even then only a proportion of the anticipated profit should be taken before the contract has been completed. Subject to these provisos, there may be a case for taking some profit towards the end of 2012.

Chapter 3

3.1 (a) Assets = capital + liabilities. (b) Twice.

3.2
(a) A record or a history of a certain event.
(b) A book in which a number of accounts are kept (a book of account).
(c) To receive something or the value received.
(d) To give something or the value given.

3.3
(a) Cash account; sales account.
(b) Rent paid account; bank account.
(c) Wages account; cash account.
(d) Purchases account; bank account.
(e) Ford's account; sales account.

3.4 The entries are on the wrong side.

3.5

	Debit	*Credit*
(a)	Suppliers	Cash
(b)	Office rent	Bank
(c)	Cash	Sales
(d)	Bank	Dividends received

3.6 A debit balance on an account means that the total on the debit side is greater than the total on the credit side. A credit balance is the opposite.

3.7 (a) no (b) yes (c) no.

Chapter 4

4.1 (a) false (b) false (c) false.

4.2
(a) Land; property; plant and machinery; furniture and fittings.
(b) Stocks; trade debtors; other debtors; insurance paid in advance; bank; cash.
(c) Bank overdraft; trade creditors; other creditors; electricity owing.

4.3
(a) £3 500 [£10 000 less (2 000 + 6 000 – 1 500)]
(b) £4 000 [£10 000 less (2 000 + 6 000 – 2 000)]
(c) £4 500 [£10 000 less (2 000 + 6 000 – 2 500)]

4.4 £2 250 (£50 000 – 5 000 = 45 000 ÷ 20)

4.6 £4 500 [£4 000 + 1 000 – 500]

4.7 £11 000 [£3 000 + 10 000 – 2 000]

4.8 Probably yes. Debit the profit and loss account and credit Gibson's account. £70 000 (£75 000 – 5 000).

4.9 £1 500 [£9 000 – (250 000 × 3%)]. It will increase his profit by £1 500.

4.10
(a) Issued share capital, debenture receipts, capital expenditure.
(b) Provisions, depreciation, bad debts.

Chapter 5

5.2 *Advantages*
Free from personal bankrupcy
The business carries on in perpetuity
Gives some status in the community.

Disadvantages
Formal accounting records to be kept
The Companies Act 2006 accounting requirements apply
Disclosure of information to the public.

5.3 (a) net profit for the year before taxation (b) dividends.

5.4 (a) current liabilities (b) loans (c) fixed assets (d) capital (e) current assets.

Chapter 7

7.1 Payment of trade creditors.

7.2 Issue of debenture stock, fixed assets purchased.

7.4 (a) false (b) false (c) true (d) false (e) true (f) false.

Chapter 10

10.2 (a) true (b) true (c) true.

10.3 (a) £40 938 (b) stocks.

10.8

Company	*Effect*
A	Not much
B	Considerable
C	Highly significant

Chapter 11

11.4 The expected profit on the contract is now £100 000 [£500 000 – (300 000 +100 000)]. Depending upon a review of the expected outcome, it might be appropriate to claim some profit on account. One way would be to apportion the expected profit on the basis of costs incurred to date as a proportion of the total cost. This would give a profit of £75 000 for Year 3 (£100 000 × 300 000/400 000). However, as the contract is only 60% through it life, some accountants might reduce this by an arbitrary factor of 2/3. The profit taken would then be £50 000 (£75 000 × 2/3). This is a normal accounting approach to the problem of revenue/profit recognition on contract work. But notice how judgemental the whole exercise appears to be.

Chapter 12

12.4 Checking, governing, recording, determining, financing, devising.

Chapter 14

14.5 (a) predetermined (b) variance.

Chapter 17

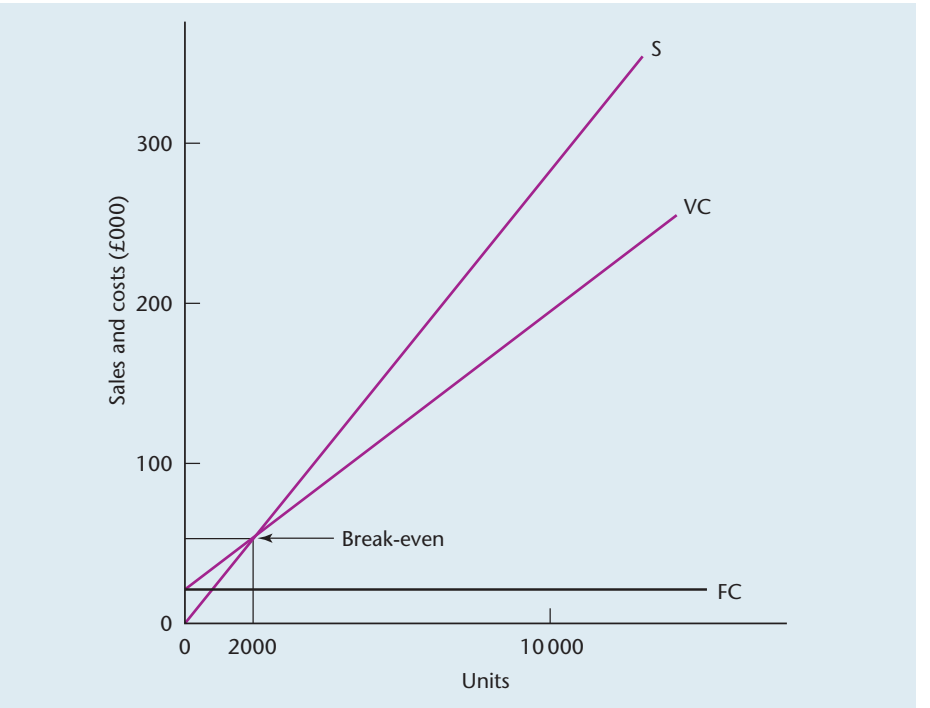
17.2 S – V = F + P so £100 000 – 40 000 = 50 000 + 10 000, i.e. P = £10 000

17.4

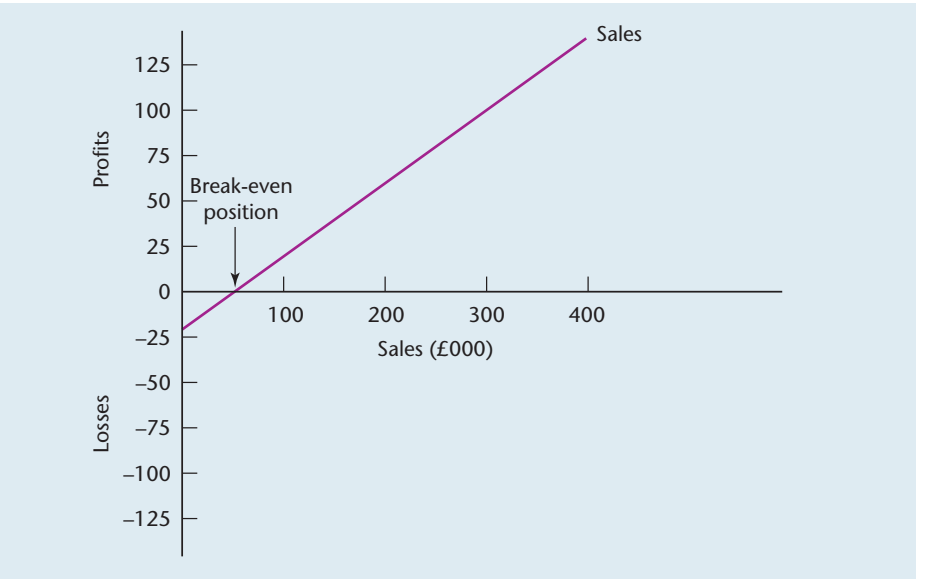
	£000	£000
Sales		75
Less: variable costs		
Direct material	10	
Direct labour	20	30
		45
Less: fixed costs		
Staff salaries	47	
Rent	3	50
Loss		(5)

17.5 The contribution per unit is £5 (£50 000 – 25 000/5 000) so another 1 000 units would have to be sold.

17.8 (a) Break-even chart



(b) Profit/volume graph



Chapter 19 **19.2** £151.22 (£200 × 0.7561)

Appendix 4 Answers to tutorial questions

Chapter 1

1.4 Accountants collect a great deal of information about an entity's activities and then translate it into monetary terms – a language that everyone understands. The information that is collected can help non-accountants to do their job more effectively because it provides them with better guidance on which to make decisions. Any eventual decision is still theirs. Futhermore, all managers must be aware of the statutory accounting obligations to which their organization has to adhere if they are to avoid taking part in unlawful acts.

1.5 To collect and store detailed information about an entity's activities.
To abstract and summarize information in the most effective way for the requirements of a specified user or group of users.

1.6 None. The preparation of management accounts is for the entity to decide whether they serve a useful purpose.

1.8 Statutory obligations are contained in the Companies Act 2006. In addition, listed companies have to abide by certain mandatory professional requirements.

Chapter 2

2.4
(a) Matching
(b) Historic cost
(c) Quantitative
(d) Periodicity
(e) Reliability
(f) Going concern

2.5
(a) Relevance
(b) Entity
(c) Comparability
(d) Materiality
(e) Historic cost
(f) Realization

2.6
(a) Entity
(b) Reliability
(c) Periodicity
(d) Reliability
(e) Dual aspect
(f) Realization

Chapter 3

3.4 Adam's books of account:

	Account	
	Debit	*Credit*
(a)	Cash	Capital
(b)	Purchases	Cash
(c)	Van	Cash
(d)	Rent	Cash
(e)	Cash	Sales
(f)	Office machinery	Cash

3.5 Brown's books of account:

	Account	
	Debit	*Credit*
(a)	Bank	Cash
(b)	Cash	Sales
(c)	Purchases	Bank
(d)	Office expenses	Cash
(e)	Bank	Sales
(f)	Motor car	Bank

3.10 Ivan's ledger accounts:

Cash Account

		£			£
1.9.10	Capital	10 000	2.9.10	Bank	8 000
12.9.10	Cash	3 000	3.9.10	Purchases	1 000

Capital Account

		£			£
			1.9.10	Cash	10 000

Bank Account

		£			£
2.9.10	Cash	8 000	20.9.10	Roy	6 000
30.9.10	Norman	2 000			

Purchases Account

		£			£
3.9.10	Cash	1 000			
10.9.10	Roy	6 000			

Roy's Account

		£			£
20.9.10	Bank	6 000	10.9.10	Purchases	6 000

Sales Account

		£			£
			12.9.10	Cash	3 000
			15.9.10	Norman	4 000

Norman

		£			£
15.9.10	Sales	4 000	30.9.10	Bank	2 000

3.11 Jones's ledger accounts:

Bank Account

		£			£
1.10.11	Capital	20 000	10.10.11	Petty cash	1 000
			25.10.11	Lang	5 000
			29.10.11	Green	10 000

Capital Account

		£			£
			1.10.11	Bank	20 000

Van Account

		£			£
2.10.11	Lang	5 000			

Lang's Account

		£			£
25.10.11	Bank	5 000	2.10.11	Van	5 000

Purchases Account

		£			£
6.10.11	Green	15 000			
20.10.11	Cash	3 000			

Green's Account

		£			£
28.10.11	Discounts received	500	6.10.11	Purchases	15 000
29.10.11	Bank	10 000			

Petty Cash Account

		£			£
10.10.11	Bank	1 000	22.10.11	Miscellaneous expenses	500

Sales

		£			£
			14.10.11	Haddock	6 000
			18.10.11	Cash	5 000

Haddock

		£			£
14.10.11	Sales	6 000	30.10.11	Discounts allowed	600
			31.10.11	Cash	5 400

Cash Account

		£			£
18.10.11	Sales	5 000	20.10.11	Purchases	3 000
31.10.11	Haddock	5 400			

Miscellaneous Expenses

		£			£
22.10.11	Petty cash	500			

Discounts Received Account

		£			£
			28.10.11	Green	500

Discounts Allowed Account

		£			£
30.10.11	Haddock	600			

3.13 (a), (b) and (c) Pat's ledger accounts:

Cash Account

		£			£
1.12.10	Capital	10000	24.12.10	Office expenses	5000
29.12.10	Fog	4000	31.12.10	Grass	6000
29.12.10	Mist	6000	31.12.10	Seed	8000
			31.12.10	Balance c/d	1000
		20000			20000
1.1.11	Balance b/d	1000			

Capital Account

		£			£
			1.12.10	Cash	10000

Purchases Account

		£			£
2.12.10	Grass	6000			
2.12.10	Seed	7000			
15.12.10	Grass	3000			
15.12.10	Seed	4000	31.12.10	Balance c/d	20000
		20000			20000
1.1.11	Balance b/d	20000			

Grass's Account

		£			£
12.12.10	Purchases returned	1000	2.12.10	Purchases	6000
31.12.10	Cash	6000	15.12.10	Purchases	3000
31.12.10	Balance c/d	2000			
		9000			9000
			1.1.11	Balance b/d	2000

Seed's Account

		£			£
12.12.10	Purchases returned	2000	2.12.10	Purchases	7000
31.12.10	Cash	8000	15.12.10	Purchases	4000
31.12.10	Balance c/d	1000			
		11000			11000
			1.1.11	Balance b/d	1000

Sales Account

		£			£
			10.12.10	Fog	3000
			10.12.10	Mist	4000
			20.12.10	Fog	2000
31.12.10	Balance c/d	12000	20.12.10	Mist	3000
		12000			12000
			1.1.11	Balance b/d	12000

Fog's Account

		£			£
10.12.10	Sales	3000	29.12.10	Cash	4000
20.12.10	Sales	2000	31.12.10	Balance c/d	1000
		5000			5000
1.1.11	Balance b/d	1000			

Mist's Account

		£			£
10.12.10	Sales	4000	29.12.10	Cash	6000
20.12.10	Sales	3000	31.12.10	Balance c/d	1000
		7000			7000
1.1.11	Balance b/d	1000			

Purchases Returned Account

		£			£
			12.12.10	Grass	1000
31.12.10	Balance c/d	3000	12.12.10	Seed	2000
		3000			3000
			1.1.11	Balance b/d	3000

Office Expenses Account

		£			£
24.12.10	Cash	5000			

Tutorial note
It is unnecessary to balance off an account and bring down the balance if there is only a single entry in it.

(d) Pat's trial balance:

Pat
Trial balance at 31 December 2010

	£ *Dr*	£ *Cr*
Cash	1000	
Capital		10000
Purchases	20000	
Grass		2000
Seed		1000
Sales		12000
Fog	1000	
Mist	1000	
Purchases returned		3000
Office expenses	5000	
	28000	28000

3.14 (a) Vale's books of account:

Bank Account

		£			£
1.1.11	Balance b/d	5 000	31.12.11	Dodd	29 000
31.12.11	Fish	45 000	31.12.11	Delivery van	12 000
31.12.11	Cash	3 000	31.12.11	Balance c/d	12 000
		53 000			53 000
1.1.12	Balance b/d	12 000			

Capital Account

		£			£
			1.1.11	Balance b/d	20 000

Cash Account

		£			£
1.1.11	Balance b/d	1 000	31.12.11	Purchases	15 000
31.12.11	Sales	20 000	31.12.11	Office expenses	9 000
31.12.11	Fish	7 000	31.12.11	Bank	3 000
			31.12.11	Balance c/d	1 000
		28 000			28 000
1.1.12	Balance b/d	1 000			

Dodd's Account

		£			£
31.12.11	Bank	29 000	1.1.11	Balance b/d	2 000
31.12.11	Balance c/d	3 000	31.12.11	Purchases	30 000
		32 000			32 000
			1.1.12	Balance b/d	3 000

Fish's Account

		£			£
1.1.11	Balance b/d	6 000	31.12.11	Bank	45 000
31.12.11	Sales	50 000	31.12.11	Cash	7 000
			31.12.11	Balance c/d	4 000
		56 000			56 000
1.1.12	Balance b/d	4 000			

Furniture Account

		£			£
1.1.11	Balance b/d	10 000			

Purchases Account

		£			£
31.12.11	Dodd	30 000			
31.12.11	Cash	15 000	31.12.11	Balance c/d	45 000
		45 000			45 000
1.1.12	Balance b/d	45 000			

Sales Account

		£			£
			31.12.11	Cash	20 000
31.12.11	Balance c/d	70 000	31.12.11	Fish	50 000
		70 000			70 000
			1.1.12	Balance b/d	70 000

Office Expenses Account

		£		£
31.12.11	Cash	9 000		

Delivery Van Account

		£		£
31.12.11	Bank	12 000		

(b) Vale's trial balance:

Vale
Trial balance at 31 December 2011

	Dr	*Cr*
	£	£
Bank	12 000	
Capital		20 000
Cash	1 000	
Dodd		3 000
Fish	4 000	
Furniture	10 000	
Purchases	45 000	
Sales		70 000
Office expenses	9 000	
Delivery van	12 000	
	93 000	93 000

Chapter 4 **4.7** Ethel's accounts:

Ethel
Trading, profit and loss account for the year to 31 January 2010

	£
Sales	35 000
Less: Purchases	20 000
Gross profit	15 000
Less: Expenses:	
Office expenses	11 000
Net profit	4 000

Ethel
Balance sheet at 31 January 2010

	£	£
Fixed assets		
Premises		8 000
Current assets		
Debtors	6 000	
Cash	3 000	
	9 000	
Less: Current liabilities		
Creditors	3 000	6 000
		14 000
Financed by:		
Capital		
Balance at 1 February 2009		10 000
Net profit for the year		4 000
		14 000

4.8 Marion's accounts:

Marion
Trading, profit and loss account for the year to 28 February 2011

	£000	*£000*
Sales		400
Less: Purchases		200
Gross profit		200
Less: Expenses:		
Heat and light	10	
Miscellaneous expenses	25	
Wages and salaries	98	133
Net profit		67

Marion
Balance sheet at 28 February 2011

	£000	*£000*
Fixed assets		
Buildings		50
Current assets		
Debtors	30	
Bank	4	
Cash	2	
	36	
Less: *Current liabilities*		
Creditors	24	12
		62

	£000	*£000*
Financed by:		
Capital		
Balance at 1 March 2010		50
Net profit for the year	67	
Less: Drawings	55	12
		62

4.12 (a) Lathom's trading account:

Lathom
Trading account for the year to 30 April 2010

	£	£
Sales		60 000
Less: Cost of goods sold:		
Opening stock	3 000	
Purchases	45 000	
	48 000	
Less: Closing stock	4 000	44 000
Gross profit		16 000

(b) The stock would be shown under current assets, normally as the first item.

4.14 Standish's accounts:

Standish
Trading, profit and loss account for the year to 31 May 2012

	£	£
Sales		79 000
Less: Cost of goods sold:		
Opening stock	7 000	
Purchases	52 000	
	59 000	
Less: Closing stock	12 000	47 000
Gross profit		32 000
Less: Expenses:		
Heating and lighting	1 500	
Miscellaneous	6 700	
Wages and salaries	17 800	26 000
Net profit		6 000

Standish
Balance sheet at 31 May 2012

	£	£
Fixed assets		
Furniture and fittings		8 000
Current assets		
Stock	12 000	
Debtors	6 000	
Cash	1 200	
	19 200	
Less: Current liabilities		
Creditors	4 300	14 900
		22 900
Financed by:		
Capital		
Balance at 1 June 2011		22 400
Net profit for the year	6 000	
Less: Drawings	5 500	500
		22 900

4.17 Pine's accounts:

Pine
Trading, profit and loss account for the year to 30 September 2012

	£	£
Sales		40 000
Less: Cost of goods sold:		
Purchases	21 000	
Less: Closing stock	3 000	18 000
Gross profit		22 000
Less: Expenses:		
Depreciation: furniture (15% × £8 000)	1 200	
General expenses	14 000	
Insurance (£2 000 – 200)	1 800	
Telephone (£1 500 + 500)	2 000	19 000
Net profit		3 000

Pine
Balance sheet at 30 September 2012

	£	£	£
Fixed assets			
Furniture			8 000
Less: Depreciation			1 200
		c/f	6 800

	£	£	£
			b/f 6 800
Current assets			
Stock		3 000	
Debtors		5 000	
Prepayments		200	
Cash		400	
		8 600	
Less: *Current liabilities*			
Creditors	5 900		
Accrual	500	6 400	2 200
			9 000
Financed by:			
Capital			
At 1 October 2011			6 000
Net profit for the year			3 000
			9 000

Chapter 5 **5.4** Margo Ltd's accounts:

Margo Limited
Profit and loss account for the year to 31 January 2010

	£000
Profit for the financial year	10
Tax on profit	3
Profit after tax	7
Proposed dividend (10p × £50)	5
Retained profit for the year	2

Margo Limited
Balance sheet at 31 January 2010

	£000	*£000*	*£000*
Fixed assets			
Plant and equipment at cost			70
Less: Accumulated depreciation			25
			45
Current assets			
Stocks		17	
Trade debtors		20	
Cash at bank and in hand		5	
		c/f 42	45

	£000	£000	£000
		b/f 42	45
Less: *Current liabilities*			
Trade creditors	12		
Taxation	3		
Proposed dividend	5	20	22
			67

Capital and reserves	*Authorized*	*Issued and fully paid*
	£000	£000
Share capital (ordinary shares of £1 each)	75	50
Profit and loss account (£15 + 2)		17
		67

5.5 Harry Ltd's accounts:

Harry Limited
Profit and loss account for the year to 28 February 2011

	£000	£000
Gross profit for the year		150
Administration expenses [£65 + (10% × £60)]	71	
Distribution costs	15	86
Profit for the year		64
Taxation		24
Profit after tax		40
Dividends: Ordinary proposed	20	
Preference paid	6	26
Retained profit for the year		14

Harry Limited
Balance sheet at 28 February 2011

	£000	£000	£000
Fixed assets			
Furniture and equipment at cost			60
Less: Accumulated depreciation			42
			18
Current assets			
Stocks		130	
Trade debtors		135	
Cash at bank and in hand		10	
		c/f 275	18

	£000	£000	£000
		b/f 275	18
Less: Current liabilities			
Trade creditors	25		
Taxation	24		
Proposed dividend	20	69	206
			224

Capital and reserves	*Authorized, issued and fully paid*
	£000
Ordinary shares of £1 each	100
Cumulative 15% preference shares of £1 each	40
Share premium account	20
Profit and loss account (£50 + 14)	64
	224

5.6 Jim Ltd's accounts:

(a)

Jim Limited

Trading and profit and loss account for the year to 31 March 2011

	£000	£000	£000
Sales			270
Less: Cost of goods sold:			
Opening stock		16	
Purchases		124	
		140	
Less: Closing stock		14	126
Gross profit			144
Less: Expenses:			
Advertising		3	
Depreciation: furniture and fittings (15% × £20)	3		
vehicles (25% × £40)	10	13	
Directors' fees		6	
Rent and rates		10	
Telephone and stationery		5	
Travelling		2	
Wages and salaries		24	63
Net profit			81
Corporation tax			25
Net profit after tax			56
Proposed dividend			28
Retained profit for the year			28

Jim Limited
Balance sheet at 31 March 2011

	Cost	*Depreciation*	*Net book value*
	£000	*£000*	*£000*
Fixed assets			
Vehicles	40	20	20
Furniture and fittings	20	12	8
	60	32	28
Current assets			
Stocks		14	
Debtors		118	
Bank		11	
		143	
Less: Current liabilities			
Creditors	12		
Taxation	25		
Proposed dividend	28	65	78
			106

	Authorized	*Issued and fully paid*
	£000	£000
Capital and reserves		
Ordinary shares of £1 each	100	70
Profit and loss account (£8 + 28)		36
		106

(b) According to Jim Limited's balance sheet as at 31 March 2011 the value of the business was £106,000. This is misleading. Under the historic cost convention the balance sheet is merely a statement listing all the balances left in the double-entry book-keeping system after the preparation of the profit and loss account.

It would be relatively easy, for example, to amend the balance of £106,000 by adjusting the method used for calculating depreciation and for valuing stocks. Furthermore, when a business is liquidated it does not necessarily mean that the balances shown in the balance sheet for other items (e.g. fixed assets, debtors and creditors) will be realized at their balance sheet amounts. There will also be costs associated with the liquidation of the business.

Chapter 6

6.4 Megg's accounts:

Megg
Manufacturing account for the year to 31 January 2010

	£000	*£000*
Direct materials:		
Stock at 1 February 2009	10	
Purchases	34	
	44	
Less: Stock at 31 January 2010	12	
Materials consumed		32
Direct wages		65
Prime cost		97
Factory overhead expenses:		
Administration	27	
Heat and light	9	
Indirect wages	13	49
		146
Work-in-progress at 1 February 2009	17	
Less: Work-in-progress at 31 January 2010	14	3
Manufacturing cost of goods produced		149

6.5 Moor's accounts:

Moor
Manufacturing account for the year to 28 February 2011

	£	£
Direct materials:		
Stock at 1 March 2010	13 000	
Purchases	127 500	
	140 500	
Less: Stock at 28 February 2011	15 500	125 000
Direct wages		50 000
Prime cost		175 000
Factory overheads		27 700
		202 700
Work-in-progress at 1 March 2010	8 400	
Less: Work-in-progress at 28 February 2011	6 300	2 100
Manufacturing cost of goods produced		204 800

Chapter 7

7.4 (a) Dennis Ltd's accounts using FRS 1 format:

Dennis Limited
Cash flow statement for the year ended 31 January 2010

	£000
Net cash inflow from operating activities	4
Capital expenditure	
Payments to acquire tangible fixed assets	(100)
	(96)
Management of liquid resource and financing	
Issue of ordinary share capital	100
Increase in cash	4

Reconciliation of operating profit to net cash inflow from operating activities

	£000
Operating profit (£60 – 26)	34
Increase in stocks	(20)
Increase in debtors	(50)
Increase in creditors	40
Net cash inflow from operating activities	4

(a) Dennis Ltd's accounts using IAS 7 format:

Dennis Limited
Cash flow statement for the year ended 31 January 2010

	£000	£000
Cash flows from operating activities		
Profit before taxation (£60 – 26)	34	
Adjustments for:		
Increase in trade and other receivables (£250 – 200)	(50)	
Increase in inventories (£120 – 100)	(20)	
Increase in trade payables (£220 – 180)	40	
Cash generated from operations	4	
Net cash from operating activities		4
Cash flows from investing activities		
Purchase of property, plant and equipment (£700 – 600)	(100)	
Net cash used in investing activities		(100)
Cash flows from financing activities		
Proceeds from issue of share capital (£800 – 700)	100	
Net cash used in financing activities		100
Net increase in cash and cash equivalents		4
Cash and cash equivalents at 1 February 2009		6
Cash and cash equivalents at 31 January 2010		10

(b) Dennis Limited generated £4000 cash from its operating activities during the year to 31 January 2010. It also increased its cash position by that amount during the year. However, it did invest £100,000 in purchasing some tangible fixed assets during the year, but this appeared to be paid for out of issuing another £100,000 of ordinary shares.

The cash from operating activities seems low. Its probably needs to examine its stock policy and its debtor collection arrangements because both stocks and debtors increased during the year. Its creditors also increased. Taken together, these changes might indicate that it is beginning to run into cash flow problems.

7.5 Frank Ltd's accounts using FRS1 format:

Frank Limited
Cash flow statement for the year ended 28 February 2012

	£000
Net cash inflow from operating activities	70
Management of liquid resources and financing	
Issue of debenture loan	60
Purchase of investments	(100)
Increase in cash	30

Reconciliation of operating profit to net cash inflow from operating activities

	£000
Operating profit (£40 – 30)	10
Depreciation charges	20
Increase in stocks	(30)
Decrease in debtors	110
Decrease in creditors	(40)
Net cash inflow from operating activities	70

No details of debenture interest were given in the question.

Reconciliation of net cash flow to movement in net debt:

	£000	*£000*
Increase in cash in the period	30	
Cash inflow from increase in debt	(60)	(30)
Net debt at 1.3.11		(20)
Net debt at 28.2.12		(50)

Analysis of changes in net debt:

	At 1.3.11	*Cash flows*	*At 28.2.12*
	£000	*£000*	*£000*
Cash at bank	(20)	30	10
Debt due after 1 year	–	(60)	(60)
Total	(20)	(30)	(50)

(a) Frank Ltd's accounts using IAS 7 format

Frank Limited
Cash flow statement for the year ended 28 February 2012

	£000	*£000*
Cash flows from operating activities		
Profit before taxation (£40 – 30)	10	
Adjustments for:		
Depreciation (£100 – 80)	20	
	30	
Decrease in trade and other receivables (£110 – 220)	110	
Increase in inventories (£190 – 160)	(30)	
Decrease in trade payables (£160 – 200)	(40)	
Cash generated from operations	70	
Net cash from operating activities		70
Cash flows from investing activities		
Purchase of shares	(100)	
Net cash used in investing activities		(100)
Cash flows from financing activities		
Proceeds from long-term borrowings (£60 – 0)	60	
Net cash used in financing activities		60
Net increase in cash and cash equivalents		30
Cash and cash equivalents at 1 March 2011		(20)
Cash and cash equivalents at 28 February 2012		10

(b) The cash flow statement for the year ended 28 February 2012 tells the managers of Frank Limited that the company increased its cash position by £30,000 during the year. Its operating activities generated £70,000 in cash. This was supplemented by issuing £60,000 of debenture stock making the total increase in cash £130,000. However, £100,000 of cash was used to purchase some investments.

More tests would need to be done but on the limited evidence available, the company's cash position as at the end of the year looked healthy.

Chapter 10

10.4 **Betty**
Accounting ratios year to 31 January 2011:

(a) Gross profit ratio:

$$\frac{\text{Gross profit}}{\text{Sales}} \times 100 = \frac{30}{100} \times 100 = \underline{\underline{30\%}}$$

(b) Net profit ratio:

$$\frac{\text{Net profit}}{\text{Sales}} \times 100 = \frac{14}{100} \times 100 = \underline{\underline{14\%}}$$

(c) Return on capital employed:

$$\frac{\text{Net profit}}{\text{Capital}} \times 100 = \frac{14}{48} \times 100 = \underline{\underline{29.2\%}}$$

(d) Current ratio:

$$\frac{\text{Current assets}}{\text{Current liabilities}} = \frac{25}{6} = \underline{\underline{4.2 \text{ to } 1}}$$

(e) Acid test:

$$\frac{\text{Current assets} - \text{stock}}{\text{Current liabilities}} = \frac{25 - 10}{6} = \underline{\underline{2.5 \text{ to } 1}}$$

(f) Stock turnover:

$$\frac{\text{Cost of goods sold}}{\text{Stock}} = \frac{70}{10} = \underline{\underline{7 \text{ times}}}$$

(g) Debtor collection period:

$$\frac{\text{Trade debtors}}{\text{Credit sales}} \times 365 = \frac{12}{100} \times 365 = \underline{\underline{44 \text{ days}}} \text{ (rounded up)}$$

10.5 **James Limited**
Accounting ratios year to 28 February 2012:

(a) Return on capital employed:

$$\frac{\text{Net profit before taxation and dividends}}{\text{Shareholders' funds}} \times 100 = \frac{90}{620} \times 100 = \underline{\underline{14.5\%}}$$

(b) Gross profit:

$$\frac{\text{Gross profit}}{\text{Sales}} \times 100 = \frac{600}{1200} \times 100 = \underline{\underline{50\%}}$$

(c) Mark-up:

$$\frac{\text{Gross profit}}{\text{Cost of goods sold}} \times 100 = \frac{600}{600} \times 100 = \underline{\underline{100\%}}$$

(d) Net profit:

$$\frac{\text{Net profit before taxation and dividends}}{\text{Sales}} \times 100 = \frac{90}{1200} \times 100 = \underline{\underline{7.5\%}}$$

(e) Acid test:

$$\frac{\text{Current assets} - \text{stock}}{\text{Current liabilities}} = \frac{275 - 75}{240} \times 100 = \underline{\underline{0.83 \text{ to } 1}}$$

(f) Fixed assets turnover:

$$\frac{\text{Sales}}{\text{Fixed assets (NBV)}} = \frac{1200}{685} = \underline{\underline{1.75 \text{ times}}}$$

(g) Debtor collection period:

$$\frac{\text{Trade debtors}}{\text{Credit sales}} \times 365 = \frac{200}{1200} \times 365 = \underline{\underline{61 \text{ days}}} \text{ (rounded up)}$$

(h) Capital gearing:

$$\frac{\text{Long-term loans}}{\text{Shareholders' funds + long-term loans}} \times 100 = \frac{100}{720} \times 100 = \underline{\underline{13.9\%}}$$

Chapter 12

12.4 The main function of *accounting* is to collect quantifiable data, translate it into monetary terms, store the information and extract and summarize it in a format convenient for those parties who require such information.

Financial accounting and management accounting are two important branches of accounting. The main difference between them is that financial accounting specializes in supplying information to parties *external* to an entity, such as shareholders or governmental departments. Management accounting information is mainly directed at the supply of information to parties *internal* to an entity, such as the entity's directors and managers.

12.5 A management accountant employed by a large manufacturing entity will be involved in the collecting and storing of data (largely, although not exclusively, of a financial nature) and the supply of information to management for planning, control and decision-making purposes. Increasingly, a management accountant is seen to be an integral member of an entity's management team responsible for advice on all financial matters.

Depending on seniority, the management accountant may be involved in some routine and basic duties such as the processing of data and the calculation of product costs and the valuation of stocks. At a more senior level, the role may be much more concerned with advising on the financial impact of a wide variety of managerial decisions, such as whether to close down a product line or determining the selling price of a new product.

Chapter 13

13.2 Charge to production:

(a) FIFO:

		£
1000 units	@ £20 =	20 000
250 units	@ £25 =	6 250
Charge to production		26 250

(b) Continuous weighted average:

Date	*Units*		*Value*
			£
1.1.12	1 000	@ £20	20 000
15.1.12	500	@ £25	12 500
	1 500		32 500

$$\text{Average} = \frac{£32\,500}{1\,500} = \underline{\underline{£21.67}}$$

Charge to production on 31.1.12 = 1 250 × £21.67 = £27 088

13.3 Value of closing stock

Material ST 2

	Stock	*Units*	*Total stock value* £	*Average unit price* £
1.2.10	Opening	500	500	1.00
10.2.10	Receipts	200	220	
		700	720	1.03
12.2.10	Receipts	100	112	
		800	832	1.04
17.2.10	Issues	(400)	(416)	
25.2.10	Receipts	300	345	
		700	761	1.09
27.2.10	Issues	(250)	(273)	
28.0.10	*Closing stock*	450	488	

Chapter 14

14.6 Scar Ltd's overhead:

Scar Limited
Overhead apportionment January 2012:

	Production Department		*Service Department*
	A	*B*	
	£000	*£000*	*£000*
Allocated expenses	65	35	50
Apportionment of service department's expenses in the ratio 60 : 40	30	20	(50)
Overhead to be charged	95	55	–

14.7 Bank Ltd's overhead:

Bank Limited
Assembly department – overhead absorption methods:

(a) Specific units:

$$\frac{\text{Total cost centre overhead}}{\text{Number of units}} = \frac{£250\,000}{50\,000} = \underline{\underline{£5 \text{ per unit}}}$$

(b) Direct materials:

$$\frac{\text{Total cost centre overhead}}{\text{Direct materials}} \times 100 = \frac{£250\,000}{500\,000} \times 100 = 50\%$$

Therefore 50% of £8 = £4 per unit

(c) Direct labour:

$$\frac{\text{Total cost centre overhead}}{\text{Direct labour}} \times 100 = \frac{£250\,000}{1\,000\,000} \times 100 = 25\%$$

Therefore 25% of £30 = £7.50 per unit

(d) Prime cost:

$$\frac{\text{Total cost centre overhead}}{\text{Prime cost}} \times 100 = \frac{£250\,000}{1\,530\,000} \times 100 = 16.34\%$$

Therefore 16.34% of £40 = £6.54 per unit

(e) Direct labour hours:

$$\frac{\text{Total cost centre overhead}}{\text{Direct labour hours}} = \frac{£250\,000}{100\,000} = £2.50 \text{ per direct labour hour}$$

Therefore £2.50 of 3.5 DLH = £8.75 per unit

(f) Machine hours:

$$\frac{\text{Total cost centre overhead}}{\text{Machine hours}} = \frac{£250\,000}{25\,000} = £10 \text{ per machine hour}$$

Therefore £10 of 0.75 = £7.50 per unit

Chapter 15

15.5 Direct materials budget for Tom Ltd:

TOM LIMITED

(a) Direct materials usage budget:

			Number of units				
Month	*30.4.11*	*31.5.11*	*30.6.11*	*31.7.11*	*31.8.11*	*30.9.11*	*Six months to 30.9.11*
Component:							
A6 (2 units for X)	280	560	1 400	760	600	480	4 080
B9 (3 units for X)	420	840	2 100	1 140	900	720	6 120

(b) Direct materials purchase budget:

Component A6							
Material usage (as above)	280	560	1 400	760	600	480	4 080
Add: Desired closing stock	110	220	560	300	240	200	200
	390	780	1 960	1 060	840	680	4 280
Less: Opening stock	100	110	220	560	300	240	100
Purchases (units) ×	290	670	1 740	500	540	440	4 180
Price per unit =	£5	£5	£5	£5	£5	£5	£5
Total purchases	£1 450	£3 350	£8 700	£2 500	£2 700	£2 200	£20 900

	Number of units						
Month	*30.4.11*	*31.5.11*	*30.6.11*	*31.7.11*	*31.8.11*	*30.9.11*	*Six months to 30.9.11*
Component B9							
Material usage (as above)	420	840	2 100	1 140	900	720	6 120
Add: Desired closing stock	250	630	340	300	200	180	180
	670	1 470	2 440	1 440	1 100	900	6 300
Less: Opening stock	200	250	630	340	300	200	200
Purchases (units)	470	1 220	1 810	1 100	800	700	6 100
Price per unit	£10	£10	£10	£10	£10	£10	£10
Total purchases	£4 700	£12 200	£18 100	£11 000	£8 000	£7 000	£61 000

15.6 Direct labour budget for Don Ltd:

Don Limited

Direct labour cost budget:

		Quarter			
		30.6.12	31.7.12	31.8.12	*Three months to 31.8.12*
Grade:					
Production (units) ×		600	700	650	1 950
Direct labour hours per unit =		3	3	3	3
Total direct labour hours		1 800	2 100	1 950	5 850
Budgeted rate per hour (£) ×		4	4	4	4
Production cost (£) =	*c/f*	7 200	8 400	7 800	23 400

		Quarter			
		30.6.12	31.7.12	31.8.12	*Three months to 31.8.12*
Production cost (£) =	*b/f*	7 200	8 400	7 800	23 400
Finishing (units)		600	700	650	1 950
Direct labour hours per unit ×		2	2	2	2
Total direct labour hours =		1 200	1 400	1 300	3 900
Budgeted rate per hour (£) ×		8	8	8	8
Finishing cost (£) =		9 600	11 200	10 400	31 200
Total budgeted direct labour cost (£)		16 800	19 600	18 200	54 600

Chapter 16

16.4 **Variances for X Ltd:**

(a) Direct materials total variance:

	£	
Actual price per unit × actual quantity = £12 × 6 units	72	
Less: Standard price per unit × standard quantity for actual production = £10 × 5 units	50	
	22	(A)

(b) Direct materials price variance:

(Actual price – standard price) × actual quantity = (£12 – 10) × 6 units

£12 (A)

(c) Direct materials usage variance:

(Actual quantity – standard quantity) × standard price = (6 – 5 units) × £10

£10 (A)

16.6 **Variances for Bruce Ltd:**

	£	
(a) Direct labour total variance:		
Actual hours × actual hourly rate = 1000 hrs × £6.50	6 500	
Less: Standard hours for actual production × standard hourly rate = 900 hrs × £6.00	5 400	
	£1 100	(A)
(b) Direct labour rate variance:		
(Actual hourly – standard hourly rate) × actual hours = (£6.50 – 6.00) × 1000 hrs	£500	(A)
(c) Direct labour efficiency variance:		
(Actual hours – standard hours for actual production) × standard hourly rate = (1000 hrs – 900) × £6.00	£600	(A)

16.8 **Overhead variances for Anthea Ltd:**

	£	
(a) Fixed production overhead total variance:		
Actual fixed overhead	150 000	
Less: Standard hours of production × fixed production overhead absorption rate = (8000 hrs × £15)	120 000	
	£30 000	(A)
(b) Fixed production overhead expenditure variance:		
Actual fixed overhead – budgeted fixed overhead = (£150 000 – 135 000)	£15 000	(A)
(c) Fixed production overhead volume variance:		
Budgeted fixed overhead – (standard hours of production × fixed production overhead absorption rate) = [£135 000 – (8000 × £15)]	£15 000	(A)

16.9 **Performance measures for Anthea Ltd:**

Performance measures:

(a) Efficiency ratio:

$$\frac{\text{SHP}}{\text{Actual hours}} \times 100 = \frac{8000}{10\,000} \times 100 = \underline{80\%}$$

(b) Capacity ratio:

$$\frac{\text{Actual hours}}{\text{Budgeted hours}^*} \times 100 = \frac{10\,000}{9000} \times 100 = \underline{111.1\%}$$

(c) Production volume ratio:

$$\frac{\text{SHP}}{\text{Budgeted hours}^*} \times 100 = \frac{8000}{9000} \times 100 = \underline{88.9\%}$$

$^*\frac{135\,000}{15}$

16.12 **Selling price variance for Milton Ltd:**

(a) Selling price variance:

[Actual sales revenue – (actual quantity × standard cost per unit)] – (actual quantity × standard profit per unit) = [£99 000 – (9000 × £7)] – (9000 × £3*) =	£9000	(F)

* £10 – 3

(b) Sales volume profit variance:

(Actual quantity – budgeted quantity) × standard profit = (9000 units – 10 000) × £3	£3000	(A)

(c) Sales variances = £9000 (F) + 3000 (A) = £6000 (F)

Chapter 17

17.4 Contribution analysis for Pole Ltd:

Pole Limited
Marginal cost statement for the year to 31 January 2012

	£000	*£000*
Sales		450
Less: Variable costs:		
Direct materials	60	
Direct wages	26	
Administration expenses: variable (£7 + 4)	11	
Research and development expenditure: variable (£15 + 5)	20	
Selling and distribution expenditure: variable (£4 + 9)	13	130
		320
Contribution		
Less: Fixed costs:		
Administration expenses (£30 + 16)	46	
Materials: indirect	5	
Production overhead	40	
Research and development expenditure (£60 + 5)	65	
Selling and distribution expenditure (£80 + 21)	101	
Wages: indirect	13	270
Profit		50

17.5 Break-even chart for Giles Ltd:

Giles Limited

(a) (i) *Break-even point*:

In value terms:

$$\frac{\text{Fixed costs} \times \text{sales}}{\text{Contribution}} = \frac{£150\,000 \times 500}{(500 - 300)} = £375\,000$$

In units:

	£
Selling price per unit (£500 ÷ 50)	10
Less: Variable cost per unit (£300 ÷ 50)	6
Contribution per unit	4

$$\frac{\text{Fixed costs}}{\text{Contribution per unit}} = \frac{£150\,000}{4} = 37\,500 \text{ units}$$

(ii) *Margin of safety*:

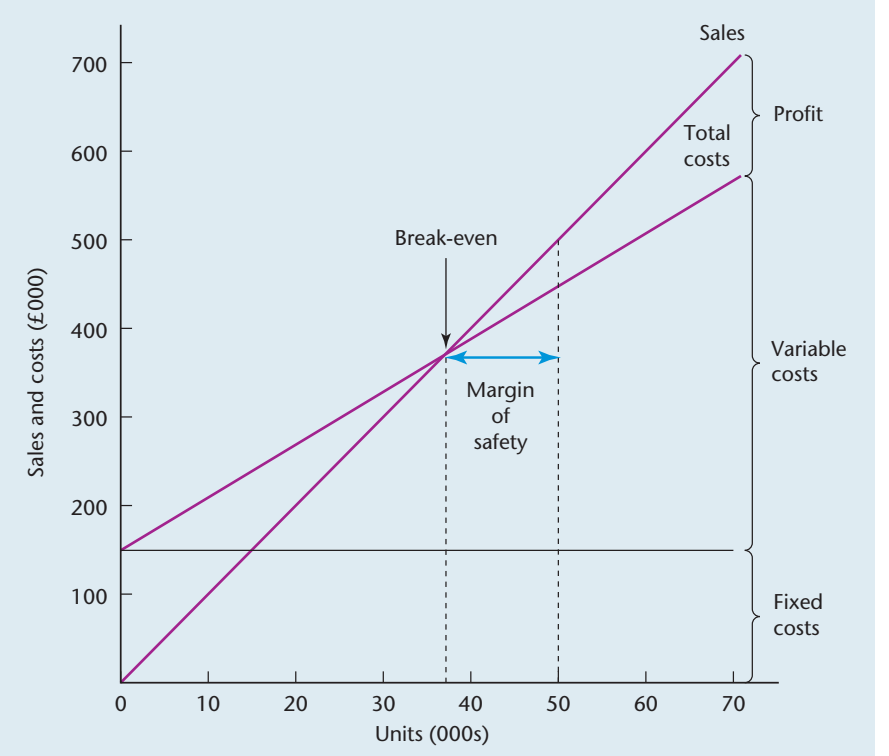
In value terms:

$$\frac{\text{Profit} \times \text{sales}}{\text{Contribution}} = \frac{£50\,000 \times 500}{200} = £125\,000$$

In units:

$$\frac{\text{Profit}}{\text{Contribution per unit}} = \frac{£50\,000}{4} = 12\,500 \text{ units}$$

(b) *Break-even chart*:



Chapter 18

18.4 **A special contract for Micro Ltd:**
Budgeted contribution per unit of limiting factor for the year:

$$\frac{£250\,000}{50\,000} = £5 \text{ per direct labour hour}$$

Contribution per unit of limiting factor for the special contract:

	£	£
Contract price		50 000
Less: Variable costs:		
Direct materials	10 000	
Direct labour	30 000	40 000
Contribution		10 000

Therefore contribution per unit of limiting factor:

$$\frac{£10\,000}{4\,000 \text{ DLH}} = £2.50 \text{ per direct labour hour}$$

Conclusion:
The special contract earns less contribution per unit of limiting factor than does the *average* of ordinary budgeted work. It may be profitable to accept the contract if either it displaces less profitable work or surplus direct labour hours are available. A careful assessment should be undertaken to ascertain whether much more profitable work would be found than is the case with the contract if it will displace other more profitable contracts that could arise in the near future.

18.5 Contributions for Temple Ltd:

(a) **Calculation of the contribution per unit of limiting factor**

(i) Normal work:

	£
Sales	6 000
Direct materials (100 kilos)	700
Direct labour (200 hours)	3 000
Variable overhead	300
	4 000
Contribution	2 000

Contribution per unit of key factor:

Direct materials: $\frac{£2000}{100 \text{ kilos}} = £20 \text{ per kilo}$

Direct labour: $\frac{£2000}{200 \text{ direct labour hours}} = £10 \text{ per direct labour hour}$

(ii) and (iii) Calculation of the contribution per unit of limiting factor for each of the proposed two new contracts:

		Contract 1	Contract 2
		£000	*£000*
Contract price		1 000	2 100
Less: Variable costs			
Direct materials		300	600
Direct labour		300	750
Variable overhead		100	250
		700	1 600
Contribution		300	500
Contribution per unit of key factor:			
Direct materials		£300	£500
		50 kilos	100 kilos
	=	£6 per kilo	£5 per kilo
Direct labour		£300	£500
		10 DLH	25 DLH
	=	£30 per DLH	£20 per DLH

Summary of contribution per unit of limiting factor:

	Direct materials	Direct labour
	£	£
Normal work	20	10
Contract 1	6	5
Contract 2	30	20

(b) **Calculation of the total maximum contribution**

Contract 1

If Contract 1 is accepted, it will earn a total contribution of £300,000. This will leave 150,000 kilos of direct material available for its normal work (200,000 kilos maximum available, less the 50,000 used on Contract 1). This means that 1,500 units of ordinary work could be undertaken (150,000 kilos divided by 100 kilos per unit).

However, Contract 1 will absorb 10,000 direct labour hours, leaving 90,000 DLH available (100,000 DLH less 10,000 DLH). As each unit of ordinary work uses 200 DLH, the maximum number of units that could be undertaken is 450 (90,000 DLH divided by 200 DLH). Thus the maximum number of units of ordinary work that could be undertaken if Contract 1 is accepted is 450 and NOT 1500 units if direct materials were the only limiting factor. As each unit makes a contribution of £2000, the total contribution would be £900,000 (450 units × £2000).

The total maximum contribution, if Contract 1 is accepted, is therefore, £1,200,000 (£300,000 + 900,000).

Contract 2

If Contract 2 is accepted, only 100,000 kilos of direct materials will be available for ordinary work (200,000 kilos maximum available less 100,000 required for Contract 2). This means that only 1000 normal jobs could be undertaken (100 000 kilos divided by 100 kilos required per unit).

Contract 2 would absorb 25,000 direct labour hours, leaving 75,000 available for normal work (100,000 maximum DLH less the 25,000 DLH used by Contract 2). As each unit of normal work takes 200 hours, only 375 units could be made (75,000 DLH divided by 200 DLH per unit). Thus if this contract is accepted, 375 is the maximum number of normal jobs that could be undertaken.

This would give a total contribution of £750,000 (375 units multiplied by £2000 of contribution per unit).

If Contract 2 is accepted, the total maximum contribution would be £1,250,000, i.e. Contract 2's contribution of £500,000 plus the contribution of £750,000 from the normal work.

The decision

Accept Contract 2 because the maximum total contribution would be £1,250,000 compared with the £1,200,000 if Contract 1 was accepted.

Tutorial notes

1 The various cost relationships are assumed to remain unchanged at all levels of activity.
2 Fixed costs will not be affected irrespective of which contract is accepted.
3 The market for Temple's normal sales is assumed to be flexible.
4 Contract 2 will absorb one-half of the available direct materials and one-quarter of the available direct labour hours. Would the company want to commit such resources to work that may be uncertain and unreliable and that could have an adverse impact on its normal customers?

Chapter 19

19.5 Payback for Buchan Enterprises:

(a) Payback period:

Year	*Investment outlay*	*Cash inflow*	*Net cash flow*	*Cumulative cash flow*
	£	£	£	£
1	(50 000)	8 000	(42 000)	(42 000)
2	–	16 000	16 000	(26 000)
3	–	40 000	40 000	14 000
4	–	45 000	45 000	59 000
5	–	37 000	37 000	96 000

Net cash flow becomes positive in Year 3. Assuming the net cash flow accrues evenly, it becomes positive during August: (26/40 × 12) = 7.8 months. The payback period, therefore, is about 2 years 8 months.

(b) Discounted payback period:

Year	*Net cash flow*	*Discount factor @ 12%*	*Discounted net cash flow*	*Cumulative net cash flow*
	£		£	£
0	(50 000)	1.0000	(50 000)	(50 000)
1	8 000	0.8929	7 143	(42 857)
2	16 000	0.7929	12 686	(30 171)
3	40 000	0.7118	28 472	(1 699)
4	45 000	0.6355	28 598	26 899
5	37 000	0.5674	20 994	47 893

Discounted net cash flow becomes positive in Year 4. Assuming the net cash flow accrues evenly throughout the year, it becomes positive in January of Year 4 (1699/28,598 × 12 = 0.7). Discounted payback period therefore equals 3 years 1 month. This value is in contrast with the payback method, where the net cash flow becomes positive in August of Year 3 (i.e. 2 years 8 months).

19.6 **Lender Ltd's accounting rate of return:**

$$\text{Accounting rate of return (APR)} = \frac{\text{average annual net profit after tax}}{\text{cost of the investment}} \times 100\%$$

$$= \frac{\frac{1}{5}(£18\,000 + 47\,000 + 65\,000 + 65\,000 + 30\,000)}{100\,000} \times 100\%$$

$$= \frac{45\,000}{100\,000} \times 100\%$$

$$= \underline{\underline{45\%}}$$

Note: Based on the average investment, the ARR

$$= \frac{£45\,000}{\frac{1}{2}(100\,000 + 0)} \times 100\%$$

$$= \underline{\underline{90\%}}$$

19.7 **Net present value for a Lockhart project:**

Net present value:

Year	*Net cash flow £000*	*Discount factor @15%*	*Present value £000*
1	800	0.8696	696
2	850	0.7561	643
3	830	0.6575	546
4	1 200	0.5718	686
5	700	0.4972	348
Total present value			2 919
Initial cost			2 500
Net present value			419