



Revision Sheets for the Final Exams

Business Studies

Academic Year 2020 - 2021

Grade 9

16 Costs, scale of production and break-even analysis

Worksheet 16 - A Definition of costs

1 The following definitions have been mixed up. Match the cost with the correct description.

Cost	Definition
Fixed cost	All the costs of a business added together
Economy of scale	Total cost of production divided by total output
Average cost	Cost that does not change as output changes
Total cost	Cost that changes as output changes
Variable cost	Factors that lead to a reduction in the average costs as a business grows in size

2 State whether the following statements are true or false. Give a reason for your decision.

a Opportunity cost is an example of a variable cost. _____

Reason: _____

b Average cost is based on the fixed costs of a business. _____

Reason: _____

c A fixed cost stays the same as output changes. _____

Reason: _____

3 Select the correct word to complete the following sentences:

a Total cost is the sum of fixed and average/variable costs.

b Variable costs change according to the number of items made/sold.

c Average cost is total cost divided by total customers/output.

4 State whether the following are fixed or variable costs:

- a rent _____
- b wages _____
- c parts and components _____

5 Use the words in the box to complete the following sentences about the uses of cost data.

wage total variable fixed revenue loss profit higher costs

- a Setting prices – knowing how much it _____ to make a product can help the business work out what price to charge in order to make a _____.
- b Location decisions – the cost of different locations can affect the _____ costs that a business might face. This is because it might have to pay higher _____ costs, e.g. cost of land and _____ costs such as _____ rates for employees.
- c Whether to stop or increase production – if the total costs are _____ than the total _____ the business will make a _____, and might decide to stop production.

6 Explain why it is important for a business to be able to calculate its average cost.

B Break-even analysis

Note: Students could also use a computer to produce the charts for this activity.

XYP, a camera company, has fixed costs of \$12 000. The variable costs per camera are \$25. Each camera is sold for \$40. The company hopes to sell 1000 cameras per month but the factory could produce 1250 cameras per month.

1 Complete the following table to show the costs at the various levels of output.

Number sold	Fixed costs \$	Variable costs \$	Total costs \$	Revenue \$
0				
100				
200				
300				

400				
500				
600				
700				
800				
900				
1000				
1100				
1200				

2 Produce a break-even chart, based on the information in Question 1.

3 Identify and label the break-even output on your chart.

4 Use the formula to check whether the break-even point is correct.

5 Write a sentence explaining what your answer to Question 3 will mean for the company in terms of its planned production level.

6 Calculate the amount of profit the company would make if it produced 1000 cameras per month.

Extension questions

For each question, produce a new break-even chart to show your results. Check your answer using the formula.

- 7 If the price of the camera changed to \$45, how would this affect the break-even output?

- 8 If the price of the camera changed to \$35, how would this affect the break-even output?

- 9 If the fixed costs changed to \$15 000 (assuming the price is still \$40), how would this affect the break-even output?

- 10 If the fixed costs changed to \$10 000 (assuming the price is still \$40), how would this affect the break-even output?

Answers to Worksheet 16 - A Definition of costs

1 Fixed cost: Cost that does not change as output changes; Variable cost: Cost that changes as output changes; Average cost: Total cost of production divided by total output; Total cost: All the costs of a business added together; Economies of scale: Factors that lead to a reduction in the average costs as a business grows in size.

2 a False. Cost of options that haven't been selected are not included in the total costs of the business.

b False. Average cost is based on total costs divided by the number of units. **c** True.

- 3 a variable; b made; c output.
 4 a fixed; b variable; c variable.
 5 a costs, profit; b total, fixed, variable, wage; c higher, revenue, loss.

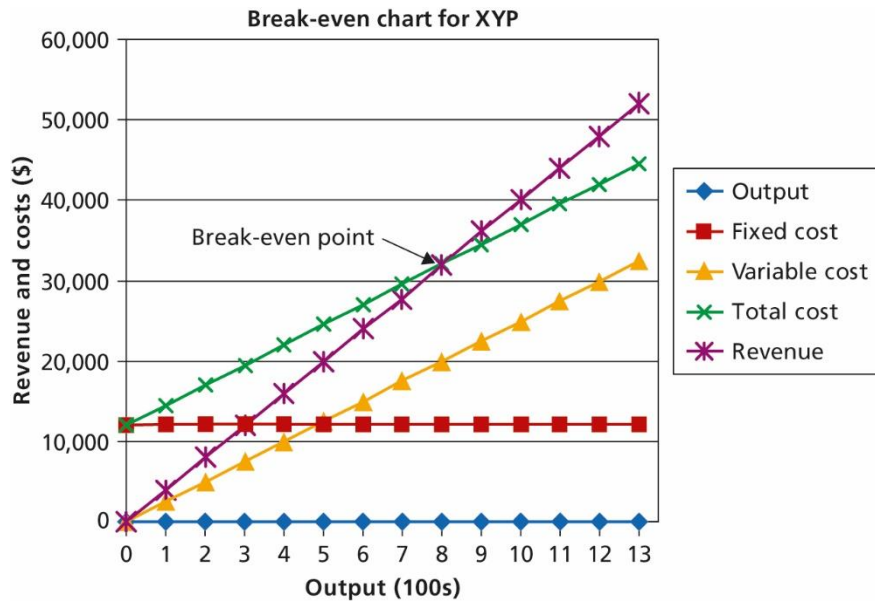
6 Average cost represents how much it has cost to produce one unit of output. So the lower the average cost of production, the more efficient the business is at producing its product. To make a profit, the price charged must be higher than the average cost.

Break-even analysis

1

Number sold	Fixed cost (\$)	Variable cost (\$)	Total cost (\$)	Sales revenue (\$)
0	12 000	0	12 000	0
100	12 000	2 500	14 500	4 000
200	12 000	5 000	17 000	8 000
300	12 000	7 500	19 500	12 000
400	12 000	10 000	22 000	16 000
500	12 000	12 500	24 500	20 000
600	12 000	15 000	27 000	24 000
700	12 000	17 500	29 500	28 000
800	12 000	20 000	32 000	32 000
900	12 000	22 500	34 500	36 000
1 000	12 000	25 000	37 000	40 000
1 100	12 000	27 500	39 500	44 000
1 200	12 000	30 000	42 000	48 000

2 and 3

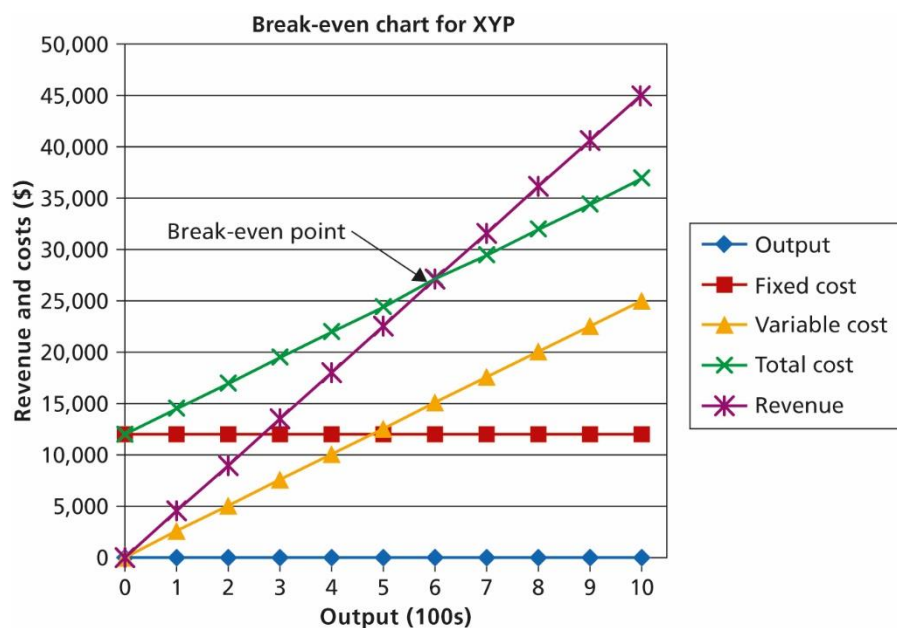


4 **Break-even point**
$$= \frac{12000}{(40 - 25)} = 800$$
 cameras

5 The results are good news for the company. It will only have to sell 800 out of 1000 cameras to break even. It will not need to sell all 1000 cameras to break even, which gives it a margin of safety of 200 cameras. If the company sells all 1000 cameras, it will make a profit.

6 **Profit** = \$40 000 – \$37 000 = \$3000

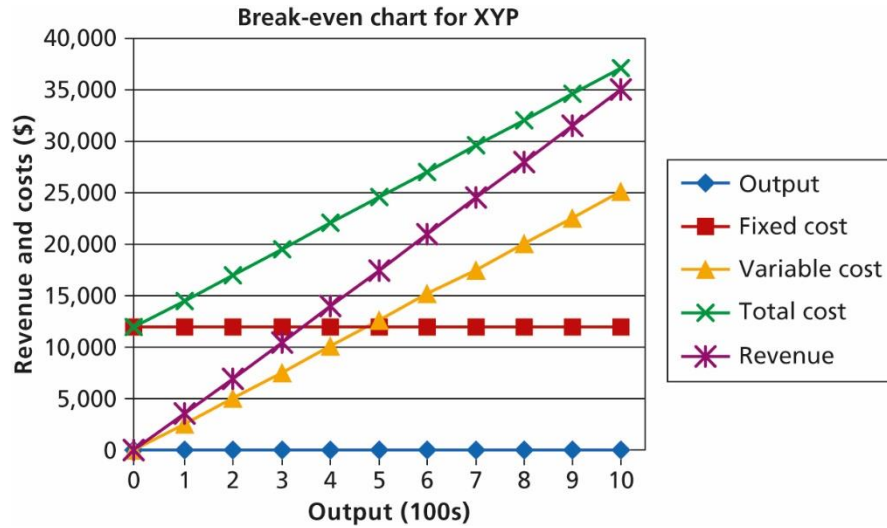
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$$\text{Break-even point} = \frac{12000}{(45 - 25)} = 600 \text{ cameras}$$

The break-even point would fall to 600 cameras. Therefore, the company has to sell fewer cameras in order to break even. It would make more profit if it sold all 1 000 cameras.

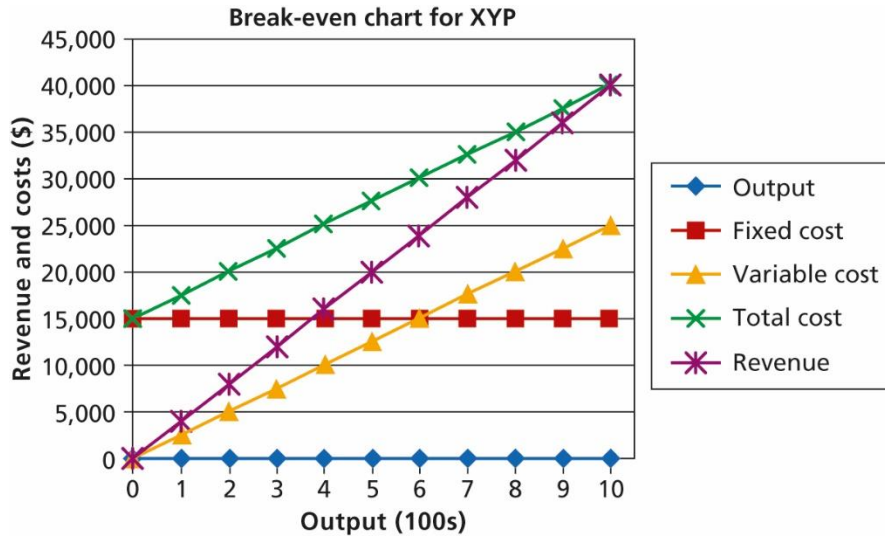
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$$\text{Break-even point} = \frac{12000}{(35 - 25)} = 1200 \text{ cameras}$$

The break-even point would have to be above the planned output of 1000 cameras. Therefore, the company would have to make and sell 1200 cameras to cover costs, which is 200 more than planned. It would not be able to make a profit unless it increased the capacity of the factory.

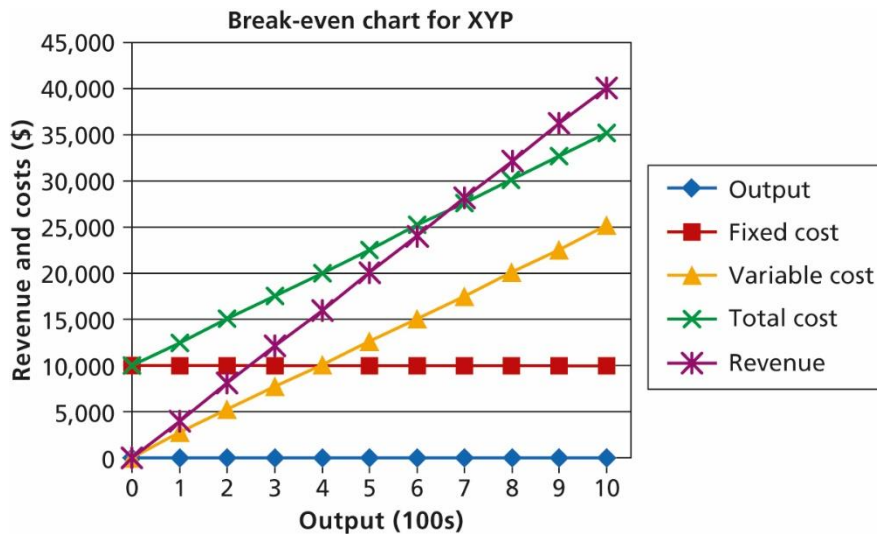
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$$\text{Break-even point} = \frac{15000}{(40 - 25)} = 1000 \text{ cameras}$$

The break-even point would rise to match the planned output of 1000 cameras. Therefore, the company would have to sell all the cameras it makes to cover its costs. To make a profit, it would have to produce and sell more cameras.

10



$$\text{Break-even point} = \frac{10000}{(40 - 25)} = 667 \text{ cameras}$$

The break-even point would fall to 667 cameras. Therefore, the company would have to sell fewer cameras in order to break even.

17 Achieving quality production

Worksheet 17 - Quality

1 Define 'quality'.

2 Define 'quality assurance'.

3 Outline how a business might try to implement quality control.

4 Describe the possible costs that a business might face as a result of poor quality.

5 The table below compares quality control and quality assurance. Fill in the gaps.

Quality assurance (QA)		Quality control (QC)
Definition		A set of activities for ensuring quality in products by checking for defects in the actual products produced, during or at the end of the production process.
Aim	To <i>prevent</i> defects with a focus on the process used to make the product.	

How	Focus is on improving the process – how things are made through quality management systems, checks and a review process.	
Who is responsible		Specific people who check products for errors.

6 Explain ways in which good quality can help a business.

Answers to Worksheet 17

Quality

- 1 Product or service that meets the customers' needs and expectations.
- 2 The processes that ensure that the quality of goods produced meets the requirements of customers. It is about putting procedures and processes in place to make sure that quality is achieved rather than relying on checking that it has.
- 3 Sampling, testing, product checks and inspection.
- 4 Lost customers so cost of attracting new ones / attracting them back – and they might tell others about their bad experience so harder / more expensive to attract. Cost of reworking or remaking product; costs of customer replacements or refunds; cost of wasted materials. Damaged reputation in the market; cost of legal action.

5

Quality assurance (QA)		Quality control (QC)
Definition	A system of setting agreed standards for every stage of production.	A set of activities for ensuring quality in products by checking for defects in the actual products produced, during or at the end of the production process.
Aim	To <i>prevent</i> defects with a focus on the	To identify (and correct) defects in the

	process used to make the product.	finished product.
How	Focus is on improving the process – how things are made through quality management systems, checks and a review process.	Focus is on the end product by physically checking products.
Who is responsible	Employees at every stage in the production process.	Specific people who check products for errors.

- 6 Customer loyalty – so existing customers make repeat purchases and are also likely to recommend the product or service to others; strong brand reputation for quality, reputation might mean more retailers want to stock the company's product; as the product is perceived to be better value for money, it may command a premium price and will become more price inelastic; fewer items are returned or need to be replaced, which should lead to lower costs; helps to attract and keep hold of good employees as they want to work for a business with a good reputation.

18 Location decisions

Worksheet 18

Location

Koonan to move to Asia

Koonan is a leading manufacturer of fashion clothing. It has announced plans to move its manufacturing overseas. The managing director believes the business has no choice. 'Moving to the Far East should mean lower production costs and we can be closer to many suppliers and new markets.'

Trade unions said a decision to move all its manufacturing overseas would lead to many job losses in America. A final decision on where the new factory should be has not been taken.

1 Identify the reasons given for moving production to Asia.

2 Explain why these factors might be important to the company's decision.

3 Describe the possible problems that the closure of the current factory might create for its employees and the local community.

4 Which factors, other than the ones already discussed, are likely to be important in influencing where the new factory is set up? Give reasons for your answer.

5 The managing director believes Koonan has no choice in moving its production. Do you agree with him? Explain your answer.

Answers to Worksheet 18

Location

- 1 Lower production costs, closer to suppliers, access to new markets.
- 2 Lower production costs should help improve profit margins, or allow the opportunity to charge lower prices/be more competitive; suppliers – easier access to materials, lower transport costs, scope to introduce just-in-time methods to improve efficiency; access to new markets – spread risk, increase revenue and profits.
- 3 Job losses for employees; other businesses might be affected as less expenditure; less pollution as fewer vehicles; unemployment might lead to social problems.
- 4 Government support, infrastructure – power, transport links, access to skilled employees.
- 5 Student's own answer, based on the points made above.

19 Business finance: needs and sources

Worksheet 19

Sources of finance (AO1, AO2)

Complete the chart below to show the difference between these sources of finance.

Source	Internal/ external	Main use	Advantages	Disadvantages
Profit	Internal	Purchase non-current assets Reinvestment Pay owners	No need to repay No interest Flexible – use when needed	Take time to raise funds Enough for amount needed? Higher profit, less available for owners/shareholders
Sell non-current assets				
Issue shares				
Overdraft				

Source	Internal/ external	Main use	Advantages	Disadvantages
Bank loan				
Sell inventory				
Leasing				
Micro- finance				
Trade credit				
Owner's savings				
Debt factoring				

Source	Internal/ external	Main use	Advantages	Disadvantages

Note: there are other sources of finance that a business could access.

Extension activity

Find out what other sources of finance are available to businesses in your country. Add these to your chart.

Answers to Worksheet 19

Sources of finance

Source	Internal /external	Main use	Advantages	Disadvantage
Profit	Internal	Purchase non-current assets Reinvestment Pay owners	No need to repay No interest Flexible – use when needed	Take time to raise funds Enough for amount needed? Higher profit, less available for owners/shareholders
Sell non-current assets	Internal	Fund expansion	No need to repay No interest	Might not have enough for amount needed Can take time to sell Loss of business asset
Issue shares	External	Fund expansion	No need to repay No interest	Could lose control Shareholders might expect dividends Takes time to arrange Only open to limited companies
Overdraft	External	Cash flow	Easy to arrange	High rates of interest Little time to repay
Bank loan	External	Fund expansion	Have agreed time to repay Offer full amount for different timescales	Must pay interest Increases liabilities of business (statements of financial position) Will need to offer assets as

Source	Internal /external	Main use	Advantages	Disadvantage
				security
Sell inventory	Internal	Cash-flow problems	Reduces opportunity cost of high storage/damage	Could upset customers as might not have inventory available to meet orders
Leasing	External	Purchase assets	No large initial payment Able to update equipment	Never own asset Have to make lease payments every month No asset for security
Micro-finance	External	Start up or purchase equipment	Easy to apply for Low repayment fees	Small amounts only
Trade credit	External	Cash-flow problems	Easy to arrange Low/no interest	Can damage relations with supplier
Owner's savings	Internal	Any purpose	Quick to access No interest to pay	Do they have enough savings? Increases owner's risk
Debt factoring	External	Cash flow	Immediate cash Responsibility to collect debt passes to a factor company	Don't receive 100% of revenue Could damage relationships with customers

20 Cash-flow forecasting and working capital

Worksheet 20

A Definition of terms (AO1)

1 The following definitions have been mixed up. Match each term with the correct description.

Term

Definition

Cash-flow forecast	Amount of money left at the end of the month
Budget	Money coming into the business
Net cash flow	Financial plan for a future period of time
Closing balance	Money going out of the business
Opening balance	A prediction of the amount of money in and out of the business over a period of time
Cash inflow	Amount of money at the beginning of the month
Cash outflow	The difference between the inflows and the outflows over the month

2 Select the correct word to complete the following sentences:

- a A lender/customer will want to see a cash-flow forecast.
- b A budget is a financial plan/forecast for a future period of time.
- c The net cash-flow/closing balance shows whether the business is overdrawn.

3 State whether the following statements are true or false.

- a The opening balance is the same as the closing balance of the previous month.

- b A bank is less likely to lend a business money if it has a cash-flow forecast. _____
- c Lack of working capital is the main reason for cash-flow problems. _____
- d A profitable business can fail if it cannot solve its cash-flow problems. _____

4 Complete the following table to show how changes in cash flow affect the net cash flow. Select the right word to show the effect of reductions in cash inflows and outflows.

Change	Effect on net cash-flow
Increase in cash inflows	Improve/worsen
Reduction in cash inflows	Improve/worsen
Increase in cash outflows	Improve/worsen
Reduction in cash outflows	Improve/worsen

5 State which of the following ways could help solve cash-flow problems.

- a Buy expensive machines rather than lease.
- b Arrange an overdraft from the bank.
- c Ask trade payables for more time.
- d Increase the level of inventory held.

B Cash flow (AO1, AO2, AO3)

Splash Active owns four holiday sites in Country N. It prides itself on its good reputation and competitive prices. All holidays are targeted at families. Customers stay in low-cost wooden beach houses, and have free use of the swimming pools. Guests pay extra for all other activities. Most people stay for either a two-day or a four-day break. Bookings are made through local travel agents. Customers pay when they arrive for their holiday.

Cash-flow forecast for Splash Active Limited 2014

	\$000			
	Q1	Q2	Q3	Q4
Cash inflows				
Cash from bookings	120	40	40	100
Cash from activities	60	10	10	50
Total cash in	180	B	50	150
Cash outflows				
Wages	80	60	60	80
Additional equipment hire	20	5	5	15
Interest	15	20	25	20
Employee training	15	10	10	10
Total cash out	130	95	100	125
Net cash flow	A	(45)	(50)	25
Opening balance	10	60	15	(35)
Closing balance	60	15	C	(10)

1 Define 'net cash flow'.

2 Calculate the three missing figures in the cash flow forecast.

A _____

B _____

C _____

3 Give one reason why cash is important for a business.

4 Write down the difference between cash flow and profit.

5 Explain possible ways in which a cash-flow forecast can be helpful for a business.

6 For each of the following, state whether the change would increase or reduce the cash flow of a business.

a Receive additional cash inflows of \$5000. _____

b Tax payment due of \$1200. _____

c Employees receive extra \$500 in bonuses. _____

d Sell old equipment for \$3000. _____

7 Explain three measures a business could take to improve its cash-flow position.

Measure 1: _____

Measure 2: _____

Measure 3: _____

Extension question

- 8 In order to boost revenue, the business has decided to make some changes. In quarter one it sponsors a sporting event that costs \$2000. To improve customer service, all employees will attend a training course in quarter two. This will cost an extra \$10 000. The business decides to spend \$7000 on a national advertising campaign in quarter three. It takes extra bookings for \$15 000 in quarter 4. Redraw the cash-flow forecast to reflect this new information.

Answers to Worksheet 20

A Definition of terms

- 1 Cash-flow forecast: A prediction of the amount of money in and out of the business over a period of time; Budget: Financial plan for a future period of time; Net cash flow: The difference between the inflows and the outflows over the month; Closing balance: Amount of money left at the end of the month; Opening balance: Amount of money at the beginning of the month; Cash inflow: Money coming into the business; Cash outflow: Money going out of the business.
- 2 a lender; b plan; c closing balance.
- 3 a True; b False; c True; d True.
- 4

Increase in cash inflows	Improve
Reduction in cash inflows	Worsen
Increase in cash outflows	Worsen
Reduction in cash outflows	Improve

- 5 b and c.

B Cash flow

- 1 Net cash flow is the difference between total cash in and total cash out to show the overall cash-flow position. A positive figure means cash received is greater than cash spent. A

negative figure would indicate that expenditure was greater than the money received.

- 2 A: 50 000; B: 50 000; C: (35 000). C must be shown as a negative number.
- 3 Cash is important as it is a liquid asset – that means it is available straight away to spend on goods and services.
- 4 Cash flow refers to when money flows in and out of the business. When sales are made, profit is calculated on the difference between revenue and costs. Profit does not take into account when the customer pays – it will include both credit and cash sales. Cash flow only records when the money is actually received by the business. If there is a delay in payment, the cash-flow and profit figures will differ.
- 5 Shows the timing of cash flows in and out of the business so it can help a business plan for its financial needs, e.g. arranging finance – if it knows when to expect a shortfall, it can take steps in advance to prevent the shortage causing a problem. If it shows evidence of planning, a bank or lender is more likely to provide it with finance.
- 6 Increase; Reduce; Reduce; Increase.
- 7 Increase cash inflow such as by selling off assets, increasing revenue; reduce cash outflows – by reducing costs such as training or interest payments; reduce the time allowed by customers to pay, by negotiating short-term loans or trade credit, factoring.

8

	Q1	Q2	Q3	Q4
Cash inflows				
Cash from bookings	120	40	40	<u>115</u>
Cash from activities	60	10	10	50
Total cash in	180	50	50	<u>165</u>
Cash outflows				
Wages	80	60	60	80
Additional equipment hire	20	5	5	15
Interest	15	20	25	20

Employee training	15	<u>20</u>	10	10
<u>Sponsoring event</u>	<u>2</u>			
<u>Advertising</u>			<u>7</u>	
Total cash out	<u>132</u>	<u>105</u>	<u>107</u>	125
Net cash flow	<u>48</u>	<u>(55)</u>	<u>(57)</u>	<u>40</u>
Opening balance	10	<u>58</u>	<u>3</u>	<u>(54)</u>
Closing balance	<u>58</u>	<u>3</u>	<u>(54)</u>	<u>(14)</u>

Note: all changes are underlined.

- 9 Cash flow has not improved. Closing balance in quarter 2 is \$3000. In quarter 3, this has gone up to \$54 000. This is a large increase. If trade payables demand immediate payment, can it pay?
- 10 Cash is probably more important than profit. Cash is the money that is immediately available to spend. Profit is the difference between revenue and costs. Not all customers pay for products straight away. However, when working out profit, a business does not take this fact into account. Therefore, a successful business can run out of cash. This means it is unlikely to be able to meet all its short-term debts. This can lead to a business becoming insolvent as trade payables might take the business to court to obtain money owed.

21 Income statements

Worksheet 21

Interpreting an income statement (AO1, AO2, AO3)

Company H manufactures a range of children's clothes. Many of its raw materials are imported. The finance manager has been looking at the financial statements.

Income statement for Company H for the period 2012–2013.

(\$000)

	2012	2013
Revenue	238 000	215 000
<i>Less</i> cost of sales	_____	105 000
Gross profit	118 000	_____
<i>Less</i> expenses		
Wages and salaries	40 000	30 000
Rent	20 000	20 000
Heating and lighting	30 000	27 000
Other expenses	_____	25 000
	112 000	_____
Profit	_____	8 000

1 What does the term 'profit' mean?

2 List three reasons why profit is important for a business.

Reason 1: _____

Reason 2: _____

Reason 3: _____

3 Fill in the missing figures to complete the trading account for this business.

4 Describe what has happened to each of the following figures. Explain one possible reason for any change.

a Revenue _____

b Cost of sales _____

c Gross profit _____

d Expenses _____

e Profit _____

5 In which year do you think the company has performed better? Give reasons for your answer. Try to include the information in the income statement to support the points you

make.

21 Income statements

Answers to Worksheet 21

Interpreting an income statement

- 1 Surplus of revenue after all costs have been paid.
- 2 Sign of success, source of finance for reinvestment, reward for risk-taking, measure of performance, attract investors.

3

	2012	2013
Revenue	238 000	215 000
<i>Less</i> cost of sales	<u>120 000</u>	105 000
Gross profit	118 000	<u>110 000</u>
<i>Less</i> expenses		
Wages and salaries	40 000	30 000
Rent	20 000	20 000
Heating and lighting	30 000	27 000
Other expenses	<u>22 000</u>	25 000
	112 000	<u>102 000</u>
Profit	<u>6 000</u>	8 000

- 4
 - a Sales revenue has fallen by \$23 000 – drop in number sold or lower price received for each item.
 - b Fallen by \$15 000 – cheaper inventory bought.
 - c Fallen by \$8000 – drop in costs didn't cover lower level of revenue.

- d** Fallen by \$10 000 – reduction in amount of wages paid to employees.
 - e** Risen by \$2000 due to reduction in expenses, which made up for lower gross profit.
- 5** Depends on the objectives of the company. Based on sales and gross profit, the company did better in 2012. Profit was higher in 2012, so overall it has improved its performance (use data from Question 4 answers).