

A Level Accounting (1st Year)

The following work is to be completed to prepare students from GCSE level for the 2-year AQA A Level Accounting course.

Full workings should be shown on separate, lined sheets of paper, labelled clearly with the question number and part. Just the answer is NOT acceptable.

Calculators may be used, but working stages MUST be shown. A black or dark blue pen should be used and a pencil and ruler for any diagrams or charts.

This work should be completed, named, and brought to the lesson within the first week of the course starting in September.

Summer Work for 1st Yr Accounting Handout Averages

1

An entrepreneur is doing an analysis of his competitors. He finds out the following information.

- Competitor A has 135 stores.
 - Competitor B has 40 stores.
 - Competitor C has 95 stores.
- a What is the average number of stores owned by the entrepreneur's competitors?
 - b The entrepreneur has six stores. What is the average number of stores owned by all four businesses, including the entrepreneur's business?

2

A florist is investigating how long flowers last before they begin to droop and can no longer be sold to customers. He finds lilies last for 7 days, chrysanthemums last for 8 days, carnations last for 10 days and roses last for 5 days. He would like to collect information about tulips and daffodils next. Calculate the average time the florist's flowers last, based on the data he has available.

3

A manager and her team are looking at spending by departments. They work out that average spending in the current year has been £15 000. They looked at five departments:

- Marketing spent £20 000.
- Production spent £20 000.
- Human resources spent £5000.
- Customer services spent £10 000.

The sales team is the fifth department. Considering the average spend was £15 000, what must the sales team have spent?

Fractions

1

For a firm's factory to function at a satisfactory level, at least 40 staff must be present at any one time. A business has 252 staff employed and due to turn up for their shift that day, but due to a vomiting bug, only two ninths of the employees are in work.

- a How many employees are in work that day?
- b Can the factory function to a satisfactory level?
- c The next day 63 employees arrive to work. Express this number as a fraction of the number of staff employed.

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2

An employee works 16 hours per week and earns £7.50 per hour. She has been offered a promotion to team leader but she is not sure if she wants the extra responsibility. To encourage her to take the role, her manager has offered to increase her hourly wage by a third.

- a Calculate what her new hourly wage rate would be.
- b Calculate how much more she would earn per week at this wage rate, compared to her wage if she does not take the promotion.

3

A manager of a bakery has noticed it has a high wastage rate of flour. One day the manager measured that only four fifths of the flour was actually used to make products. The rest (3 kg) got spilled.

- a How much flour was used to make products that day?
- b After staff training, the manager reviewed the flour wastage again. The same amount was used but employees only wasted half as much flour as they did before. As a fraction, how much did they waste after the training?

Ratios

1

A business has 600 full-time employees and 40 part-time employees. What is the ratio of full-time employees to part-time employees, in its simplest form?

2

The owner of a manufacturing plant is analysing the amount the business spends on electricity and gas. She discovers the ratio of electricity to gas spending to be 2 : 1.

- a The firm's gas bill was £2500. What was its electricity bill?
- b What was the total amount spent on electricity and gas?

3

A newsagent sells a variety of products. He took £12 000 through the till last month. He makes a large amount of his money from selling magazines. The ratio of money earned from magazines to all other products is 3 : 2. How much money did he make from the sale of magazines last month?

4

A greengrocer has noticed the increase in popularity of organic food. He now sells equal amounts of organic and non-organic fruit and vegetables. Express this as a ratio.

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5

A newspaper makes its money from the sale price of the paper and other businesses paying to advertise their products in the paper. A local newspaper tries to ensure that it has enough adverts in the paper to help the business be profitable. However, it worries that, if the paper has too many adverts, customers will be dissatisfied and turn to another paper. It aims for a ratio of content (articles etc.) to adverts of 7:2. The newspaper is 72 pages. A junior advertising executive says there are 8 pages of adverts. The rest is content.

- a What is the newspaper's actual ratio of content to adverts?
- b Is it on target?
- c What might be the consequences of your answer to part b?

Percentages

- 1 A business has various members of staff working in different departments as summarised in Table 1.8. Calculate what percentage of the workforce is in the sales department.

Table 1.8

Department	Number of employees
Sales	2
Production	120
Personnel	3
Accounts	4
Health and safety	1

- 2 An employee works in a biscuit factory. They are told that between 20% and 22.5% of each biscuit's weight should be made up of chocolate. The employee analyses a sample of three biscuits. The results are shown in Table 1.9. Calculate which biscuits have an acceptable amount of chocolate on and which do not.

Table 1.9

Biscuit	Total weight of biscuit (g)	Weight of chocolate on biscuit (g)
A	16	3
B	17	3.7
C	16.5	3.8

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- 3 A business has six stores. The managing director looked at the sales of each store as a percentage of sales of the whole business in one month. The results are shown in Table 1.10. Frome accounted for £26 000 worth of sales that month.

Table 1.10

Store name	Percentage of sales made by branch
Frome	13%
Bath	24%
Trowbridge	17%
Salisbury	5%
Bristol	20%
Swindon	

- a What percentage of sales did Swindon account for?
b What was the total amount of money earned by the business that month?
c What was the total amount of money earned by Bristol?
- 4 A hotel has various costs ranging from the rent of the building, staff wages, laundry costs, utility bills and so on. A manager calculates that of all the costs, 20% are rent and 45% are wage costs. The business spends £2970 on wages per week.
- a Calculate the business's total costs per week.
b Calculate what the business spends on rent per year.
c If rent costs halved, then what would the firm's new total cost per week be?

Percent Change

- 1 An electricity provider noticed an increasing number of customers switching to their company. Customer numbers were 65 000 last year and are 68 000 this year. Calculate the percentage increase in the firm's number of customers.
- 2 A business hires out skips and must pay VAT. This is a tax paid to the government and is 20% of the price, at the time of writing. The business charges £90 for hiring a skip before VAT is added to the price.
- a Calculate the price of hiring a skip after VAT.
b If the company hires out 30 skips, what is the total VAT it must pay?
- 3 A department incurs costs of £34 000 in one month. The department manager says this is unacceptable and the department must have spending of at least 35% less next month. The department spent £25 000 the following month.
- a By what percentage has its spending fallen?
b What should its spending have fallen to in order to meet the target?

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4

A business is having a sale. A junior sales assistant has been given information about the discounts as shown in Table 1.13 but must work out the new selling prices.

Table 1.13

Product	Price before sale	Discount
Jeans	£50	13% off
Skirts	£34	15% off
T-shirts	£12	12.5% off

- a Calculate the new selling price for:
- jeans
 - skirts
 - t-shirts
- b The sale is now ending and the employee must put prices back to their pre-sale price. However, he cannot remember their original prices. He only knows the discounted price and how much they were discounted by. Using the information in Table 1.14, calculate the original price of:
- coats
 - jumpers
 - suits

Table 1.14

Product	Price in the sale	Amount the product has been discounted by
Coats	£90	10%
Jumpers	£30	20%
Suits	£90	40%

5

A trade union is an organisation that tries to improve the rights of its members. Workers can choose whether they want to be in the trade union or not. The trade union representative for a company calculates that the number of members from the business who are a member of the trade union has changed in the last year. The results are shown in Table 1.15.

Table 1.15

	Total size of the workforce of the company	Percentage of the workforce who are in the trade union
Last year	1 250	14%
This year	1 300	15%

- Calculate the number of people in the trade union last year.
- Calculate the number of people in the trade union this year.
- Calculate the percentage change in union membership compared with last year.

**Summer Work for 1st Yr Accounting Handout
Charts**

1

Figure 1.4 is a bar chart which shows the number of Deliver-ease deliveries and the number of parcels which were delivered late, in recent months.



- a Calculate the average number of parcels delivered by Deliver-ease per month, over the period shown. Note that the number of parcels is given in thousands.
- b What percentage of deliveries in May were late?
- c What percentage of deliveries in August were delivered on time?
- d Describe, in words, the relationship between the number of deliveries and the number of deliveries that were late.
- e What could explain your answer to part d?

2

Busy Clean sell cleaning services in the Worcester area. The marketing manager produced Figure 1.5 to help analyse performance.

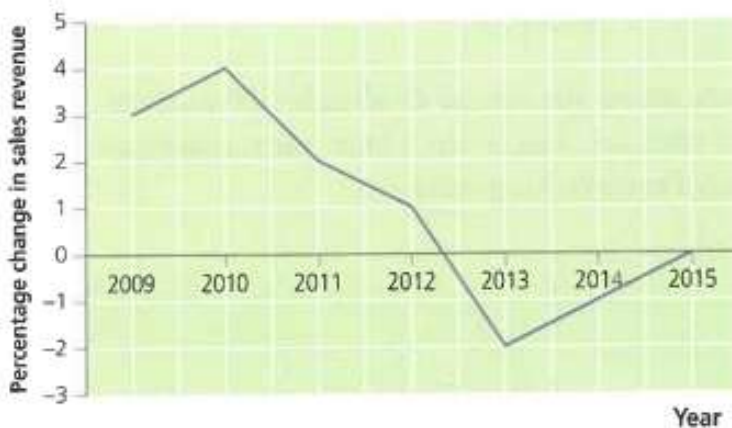


Figure 1.5 Sales data for Busy Clean

- a In which years did sales revenue decrease?
- b If busy clean raised £700 000 sales revenue in 2011, then what was sales revenue in 2012?
- c In which year was sales revenue greatest?

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Market Share

- 1 Using Table 3.1, find out which is the largest market, by value, this year.

Table 3.1

Market	Market size last year, by value	Market growth this year
A	£800m	+2%
B	£700m	+12%
C	£990m	-19%
D	£200m	+120%

2

A market sells 300 000 units at an average price of £1100.

- Calculate the market size in value.
- The next year the market sells 10% more units despite raising prices by 5%. Calculate the new market size by value.
- As a percentage, calculate how much the market has grown, in value, over the last year.

3

Table 3.2 gives market shares for firms operating within the confectionery industry.

Table 3.2

Business	Sales value (£m)	Market share
Sweet and Spice	1 680	
Cocoa	1 050	10%
Sugarlicious	630	
Sweetie Pie		5%
Others		
Total	10 500	100%

- Calculate Sweet and Spice's market share.
- Calculate Sugarlicious' market share.
- Calculate Sweetie Pie's sales value.
- Calculate the sales value and market share for the other firms in the industry.

4

A business had 5% market share by volume last year when it sold 64 000 units. This year it sold 90 000 units and has a 6% market share.

- Calculate, as a percentage, the market growth by volume in this market over the last year.
- Has the firm's own sales growth been quicker or slower than the market growth? Use calculations to support your answer.

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- 5 A company has 5% of the footwear market, 1% of the childrenswear market and 12% of the womenswear market. It has an operating profit margin of 30%. Calculate this firm's operating profit using Table 3.3.

Note: operating profit and profit margins are explained in Unit 2 Finance.

Table 3.3

Market	Size (£m)
Womenswear	15 500
Childrenswear	4 500
Footwear	5 200

Forecasting

1

The sales director is analysing data from across her stores to see how effective commission for sales people is at generating sales. Each store has 100 salespeople. Commission involves paying salespeople a percentage of the selling price of the goods they sell. She plots data regarding the number of employees who miss sales targets per store and the rate of commission paid, on the scatter graph in Figure 3.7.

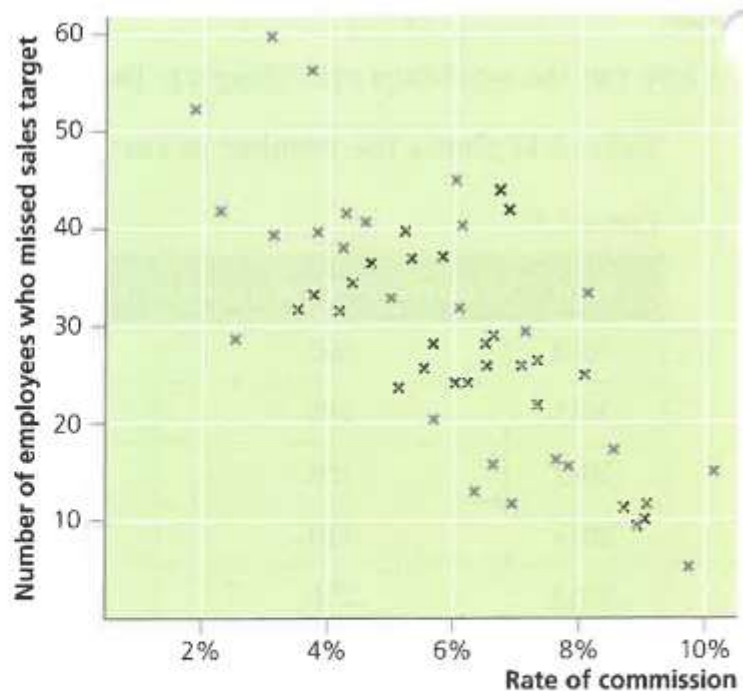


Figure 3.7 Effectiveness of commission

- What correlation, if any, is shown on the scatter graph?
- What explains the relationship seen?
- Despite the scatter graph, why might the sales director be reluctant to introduce 10% commission in all stores?

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2

Copy Table 3.13 and complete boxes A to D.

Table 3.13

Year	Sales revenue (£)	3-year total	3-point moving average
2011	500 000		
2012	550 000		A
2013	780 000		B
2014	520 000		C
2015	480 000		D
2016	650 000		

3

Figure 3.8 represents a market's size over recent years.

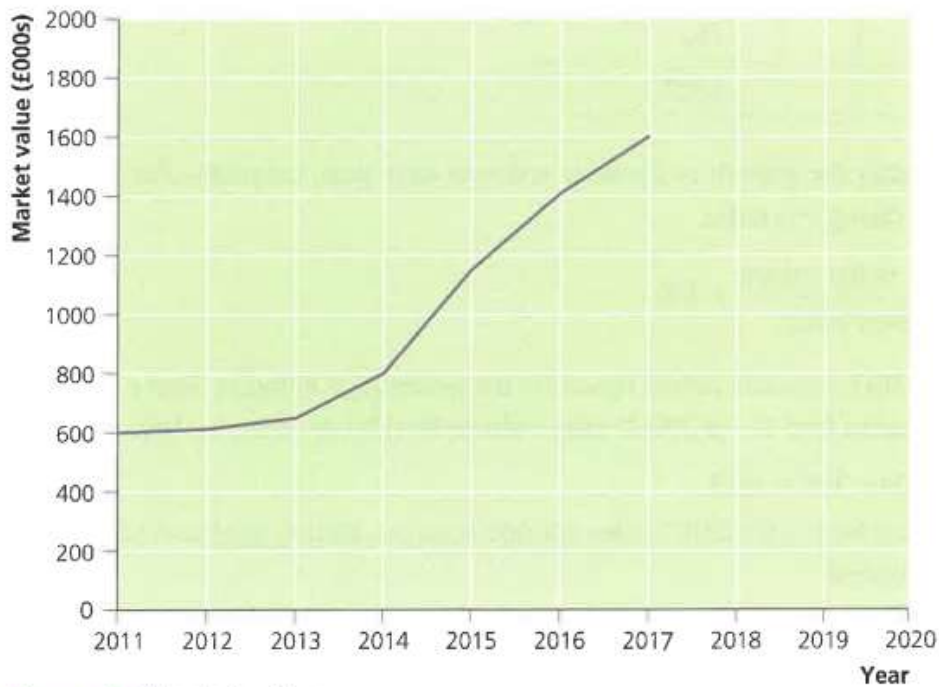


Figure 3.8 Market value

- By visually extrapolating the trend, what would you estimate the market size to be by 2020?
- Why might your answer to part a not be correct?

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4

A manager and her team at a local travel agents have been trialing the use of Twitter as a way of getting more customers into the agency and selling more luxury holidays. She plots on a scatter graph the number of tweets done per week and the number of holidays sold that week, as shown in Figure 3.9.

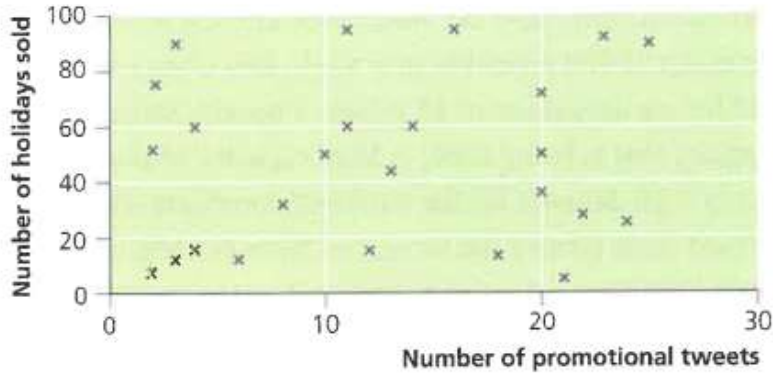


Figure 3.9

- How would you describe the correlation between the number of tweets and the number of holidays sold?
- Would you recommend the travel agents do more or fewer tweets in the future?
- What might have positive correlation with sales of luxury holidays?

5

Table 3.14

Year	Market size by value (£m)	
	Market A	Market B
2014	160	200
2015	176	202
2016	193.6	204.02

If market A and market B shown in Table 3.14 continue to grow at the same rate as they have done for 2014 to 2016, by 2018:

- What will market A's market size be?
- What will market B's market size be?
- Which will be the larger market?