

Paper 2 Past Calculation Questions

Q1.

Table 1 contains information about a business.

Sales revenue	£300 000
Cost of sales	£210 000
Gross profit	£90 000

Table 1

Using the information in Table 1 calculate the gross profit margin. You are advised to show your workings.

(2)

Q2.

Table 1 contains information about a new piece of machinery that a business will keep for five years.

Total profit over five years	£500 000
Cost of new machine	£50 000

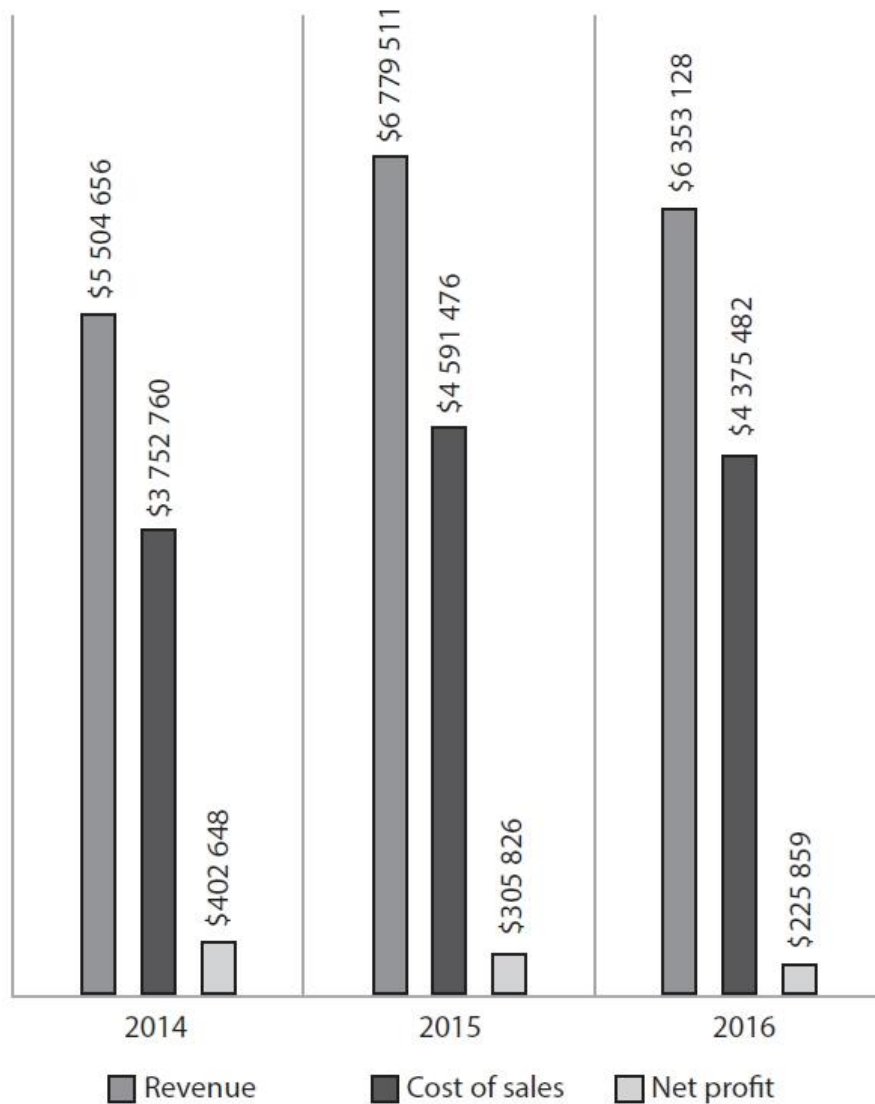
Table 1

Using the information in Table 1, calculate the average rate of return of the new machine. You are advised to show your workings.

..... %

Q3.

Figure 2 shows selected information about Netflix's financial performance between 2014 and 2016.



(Source: http://files.shareholder.com/downloads/NFLX/3523195881x0x900085/2EA1F18D-9BE4-4731-A351-CBAD36643AC4/Consolidated_Statements_of_Operations.xlsx)

Figure 2

Using the information in Figure 2, calculate *Netflix's* gross profit in 2015. You are advised to show your workings.

\$

Q4.

Using the information in Figure 2, calculate, to 2 decimal places, *Netflix's* net profit margin in 2014. You are advised to show your workings.

..... %

Q5.

Table 1 contains information about a business.

Gross profit	£1 100 000
Net profit	£800 000
Sales revenue	£2 000 000

Table 1

Using the information in Table 1, calculate the cost of sales for the business. You are advised to show your workings.

£

Q6.

Figures 2 show market research information taken from Nando's restaurant in Exeter.

Average quantity of meals sold per day at Nando's restaurant in Exeter

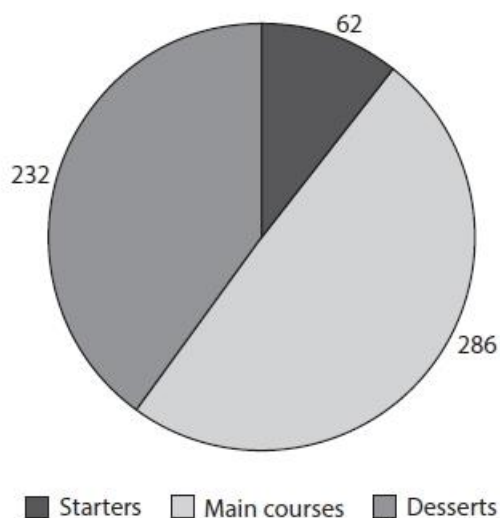


Figure 2

Using the information in Figure 2, calculate the quantity of desserts sold as a percentage of all meals sold at Nando's restaurant in Exeter. You are advised to show your workings.

..... %

(Total for question = 2 marks)

Q7.

Table 2 contains information about *Greggs'* financial performance in 2018.

	£ (000)
Sales revenue	1 029 347
Cost of sales	373 487
Other operating expenses and interest	573 292
Net profit	82 568

Table 2

Using the information in Table 2, calculate *Greggs'* gross profit.

(2)

£

Q8.

Table 2 contains information about *Mind Candy's* performance in 2013.

Sales revenue	£30 560 692
Gross profit	£22 190 385
Other operating expenses and interest	£25 044 332

(Source: adapted from <https://beta.companieshouse.gov.uk/company/05119483/filing-history>)

Table 2

Using the information in Table 2, calculate *Mind Candy's* cost of sales. You are advised to show your workings.

(2)

£

Q9.

Table 2 contains information about *Mind Candy's* performance in 2013.

Sales revenue	£30 560 692
Gross profit	£22 190 385
Other operating expenses and interest	£25 044 332

(Source: adapted from <https://beta.companieshouse.gov.uk/company/05119483/filing-history>)

Table 2

Using the information in Table 2, calculate, to 2 decimal places, *Mind Candy's* gross profit margin. You are advised to show your workings.

(2)

..... %

Q10.

Table 3 contains information about *Ocado's* financial performance in 2019.

	£ million
Cost of sales	1 164.8
Gross profit	591.8
Other operating expenses and interest	916.9
Net profit	(325.1)

Table 3

(Source: adapted from <https://www.ocadogroup.com/investors/annual-report-2019>)

Using the information in Table 3, calculate *Ocado's* sales revenue in 2019. You are advised to show your workings.

(2)

£ million

Q11.

Table 2 contains information about the price of a *Tesla* Model 3 car between 2017 and 2019.

Year	Price (in US\$)
2017	50 000
2018	41 000
2019	35 000

Table 2

Using the information in Table 2, calculate the average price of a *Tesla* Model 3 car over the three year period between 2017 and 2019.

(2)

£

Q12.

Table 2 contains information about the price of an annual supermarket delivery pass in 2020.

	£
Asda	55
Morrisons	65
Ocado	110
Sainsbury's	60

Table 2

(Source: adapted from <https://www.lovemoney.com/guides/3444/cheapest-supermarket-online-delivery-deals-asda-tesco-iceland-cost>)

Using the information in Table 2, calculate the average price of an annual supermarket delivery pass.

(2)

£

Q13.

Table 1 contains information about a new piece of machinery that a business wants to purchase.

Average annual profit	£100 000
Cost of new machine	£400 000

Table 1

Using the information in Table 1, calculate the average rate of return. You are advised to show your workings.

(2)

..... %

Q14.

Table 1 contains information about a new piece of machinery that a business wants to purchase.

Average annual profit	£200 000
Cost of new machine	£200 000

Table 1

Using the information in Table 1, calculate the average rate of return.

(2)

..... %

Q15.

Figure 2 shows a business' sales revenue from each of its four locations in South Yorkshire in 2020.

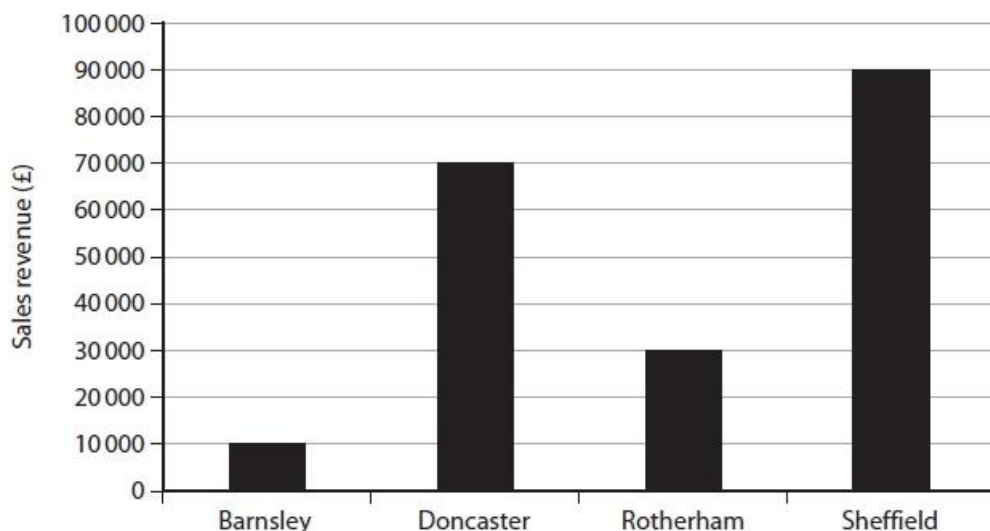


Figure 2

Using the information in Figure 2, calculate the average sales revenue for this business in 2020. You are advised to show your workings.

(2)

£

Q16.

Table 1 contains financial information about the performance of a business.

Sales revenue	£625 000
Cost of sales	£145 000
Other operating expenses and interest	£200 000

Table 1

Using the information in Table 1, calculate the gross profit made by the business. You are advised to show your workings.

(2)

£

Q17.

Figure 2 shows the market share of each business in a market.

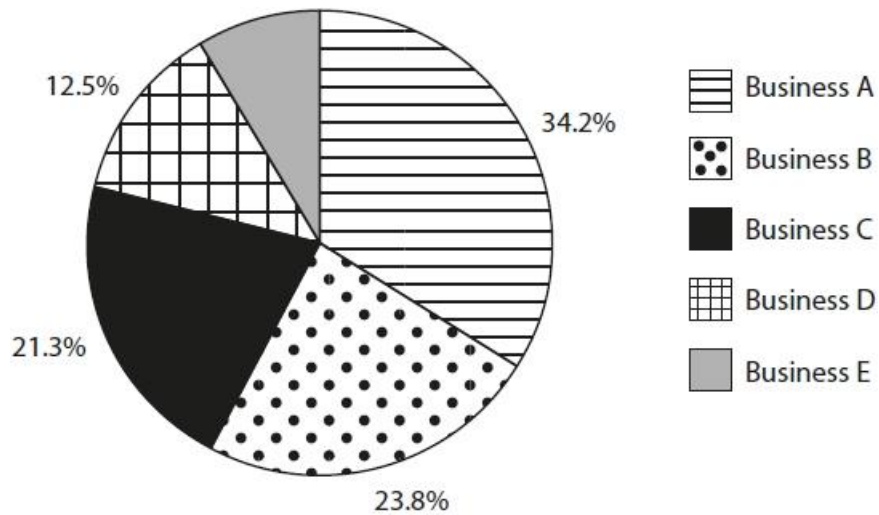


Figure 2

Using the information in Figure 2, calculate the market share of Business E. You are advised to show your workings.

(2)

.....%

Q18.

Table 1 contains financial information about a business.

Sales revenue	£800 000
Cost of sales	£225 000
Gross profit	£575 000
Other operating expenses and interest	£200 000

Table 1

Using the information in Table 1, calculate the net profit of the business.

(2)

£

Q19.

Figure 2 shows a bar gate stock graph which details the delivery of chicken portions to *KFC*'s Exmouth restaurant during February 2018. During this time it received two deliveries of chicken portions. These are marked as A and B.

Portions of chicken

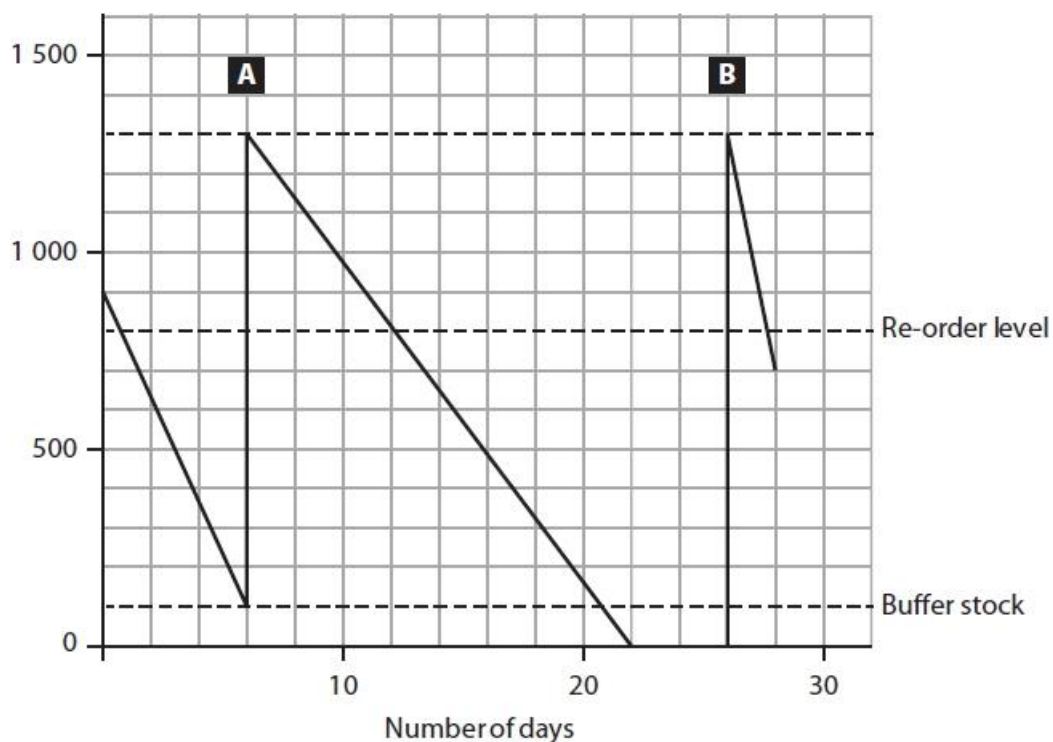


Figure 2

Using the information in Figure 2, calculate the number of days that *KFC*'s Exmouth restaurant ran out of chicken. You are advised to show your workings.

(2)

..... days.

Q20.

Figure 1 shows the sales revenue of a business over three years.

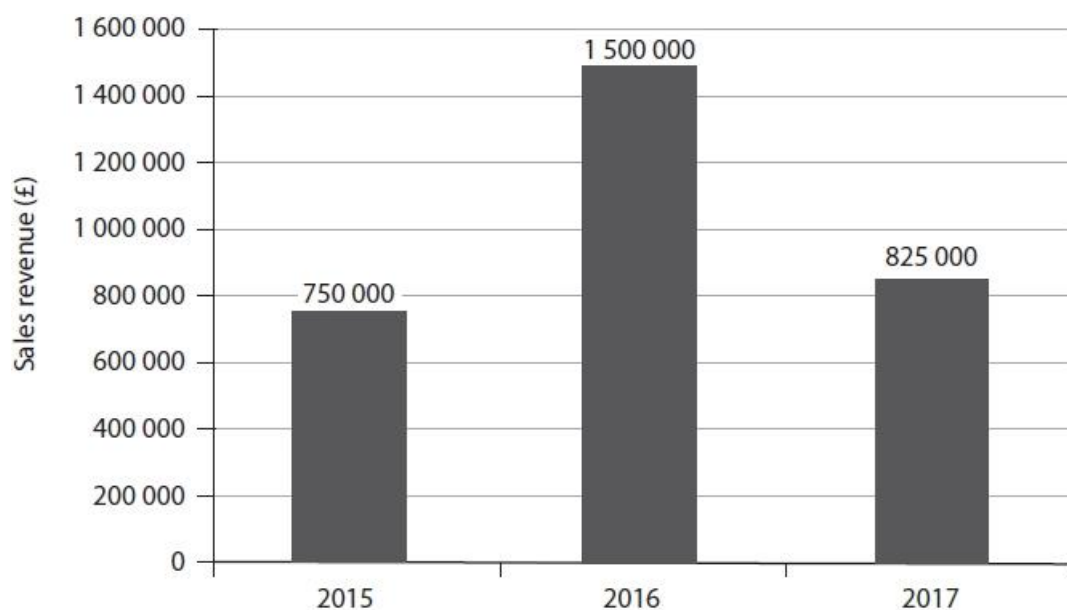


Figure 1

Using the information in Figure 1, calculate the percentage increase in sales revenue from 2015 to 2016. You are advised to show your workings.

(2)

..... %

Q21.

In 2018 a business sold three products, X, Y and Z. Figure 1 shows the sales revenue generated for each of these products.

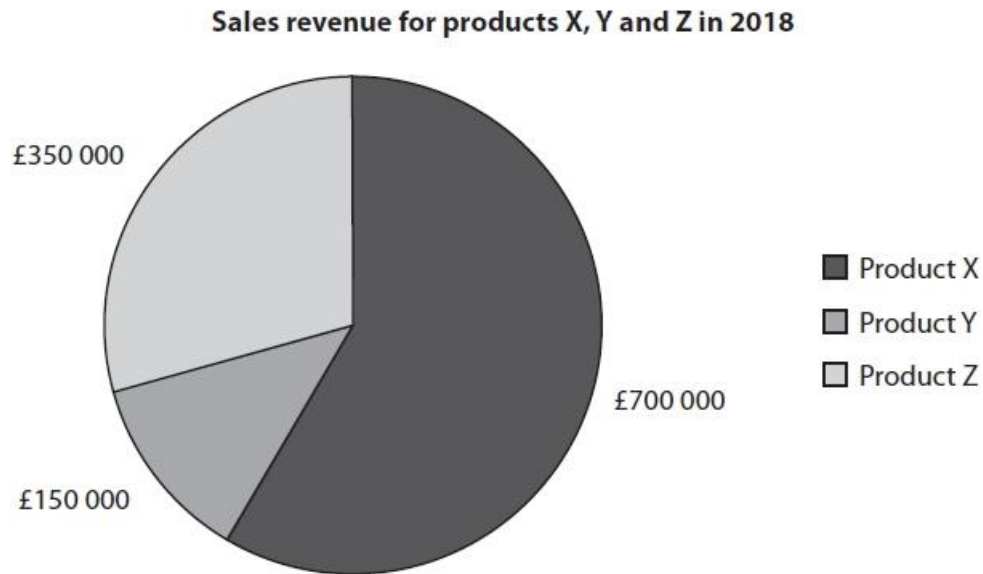


Figure 1

Using the information in Figure 1, calculate, to 2 decimal places, the percentage of total sales revenue made by product X in 2018. You are advised to show your workings.

(2)

.....%

Q22.

Table 2 contains information about the price of a *Tesla* Model 3 car between 2017 and 2019.

Year	Price (in US\$)
2017	50 000
2018	41 000
2019	35 000

Table 2

Using the information in Table 2, calculate, the percentage reduction in the price of a *Tesla* Model 3 car between 2017 and 2019.

(2)

.....%

Q23.

Figure 2 shows a bar gate stock graph which details the delivery of chicken portions to *KFC*'s Exmouth restaurant during February 2018. During this time it received two deliveries of chicken portions. These are marked as A and B.

Portions of chicken

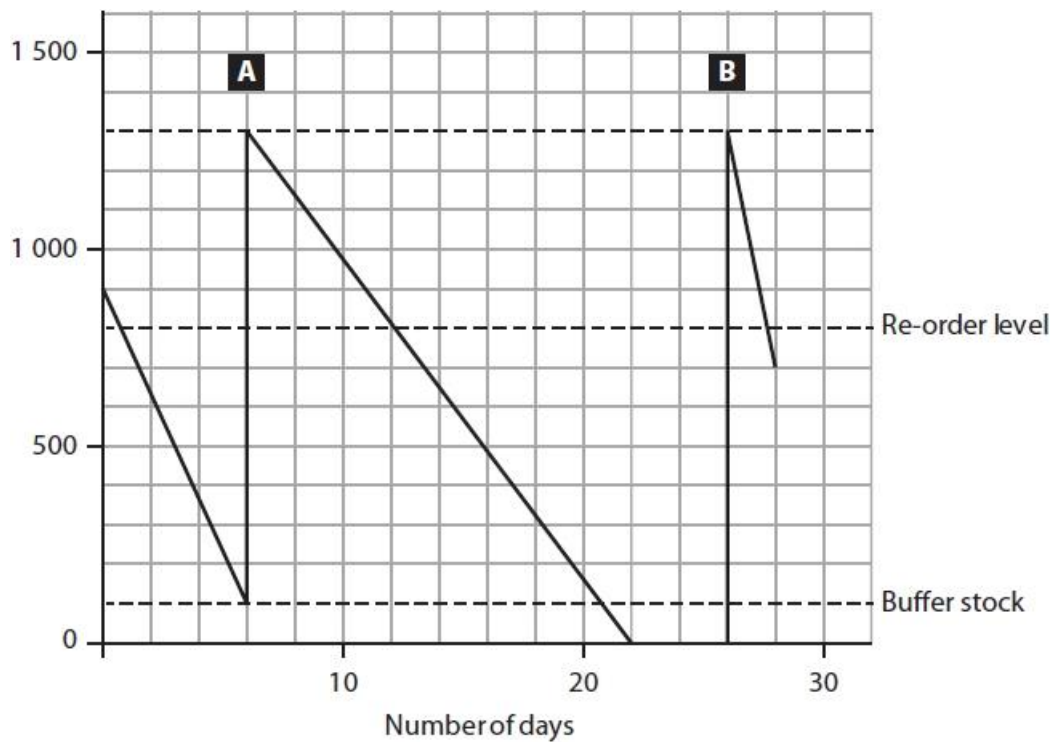


Figure 2

Using the information in Figure 2, calculate the size of order A. You are advised to show your workings.

(2)

..... portions of chicken.

Q24.

Figure 2 shows a bar gate stock graph which shows the deliveries of raw materials to a business in June 2021. These deliveries are labelled A, B and C.

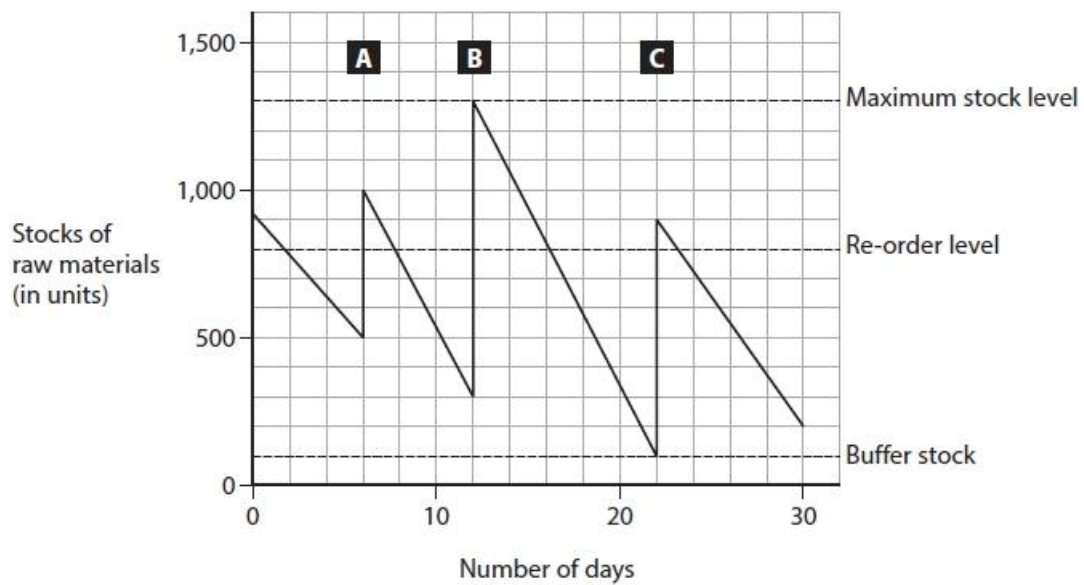


Figure 2

Using the information in Figure 2, calculate the total amount of stock that was delivered to the business in June 2021. You are advised to show your workings.

(2)

..... units

Q25.

Table 2 contains information about *Greggs'* financial performance in 2018.

	£ (000)
Sales revenue	1 029 347
Cost of sales	373 487
Other operating expenses and interest	573 292
Net profit	82 568

Table 2

Using the information in Table 2, calculate to 2 decimal places, *Greggs'* net profit margin.

(2)

.....%

Q26.

Table 1 contains financial information about a business.

	£
Sales revenue	900 000
Cost of sales	325 000
Other operating expenses and interest	175 000
Net profit	400 000

Table 1

Using the information in Table 1, calculate to 2 decimal places, the net profit margin.

(2)

.....%

Q27.

Figure 1 shows sales volumes for a business during the first three months of 2016.

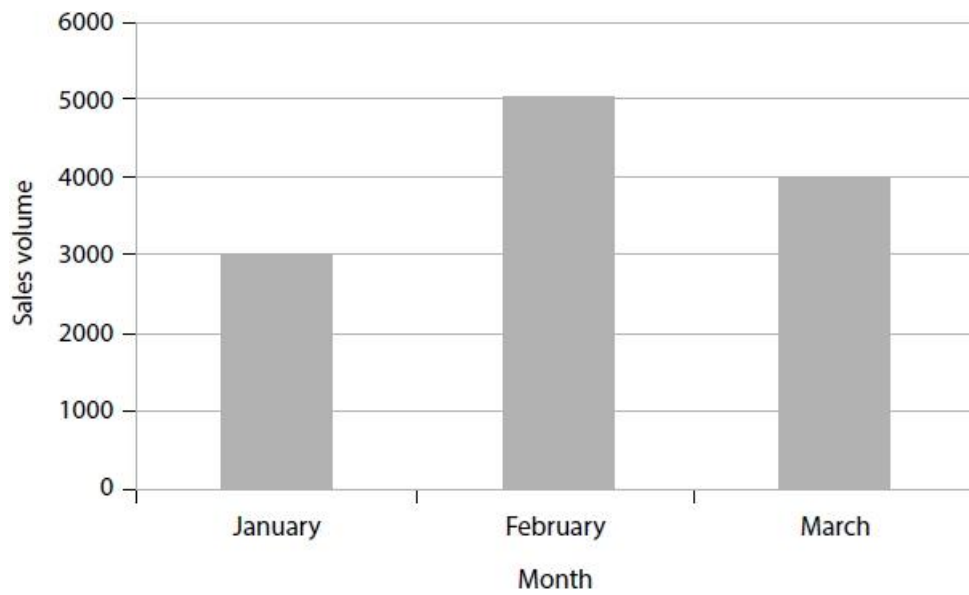


Figure 1

The selling price of the product is £500.

Using the information in Figure 1, calculate the sales revenue of the business for the first three months of 2016. You are advised to show your workings.

(2)

£

Q28.

Figure 1 shows the market share of three businesses in 2016. The entire market generated £150 million of revenue.

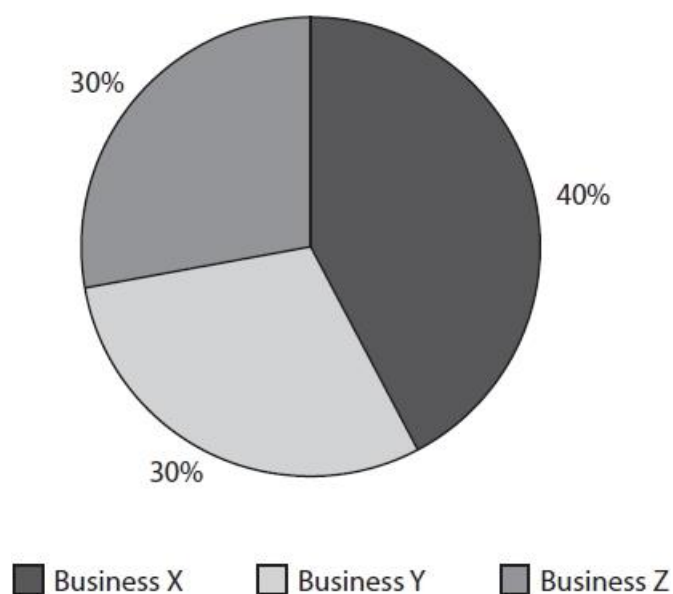


Figure 1

Using the information in Figure 1, calculate the revenue for Business X. You are advised to show your workings.

£

Q29.

Figure 1 shows the sales revenue for Business A between May and August 2016.

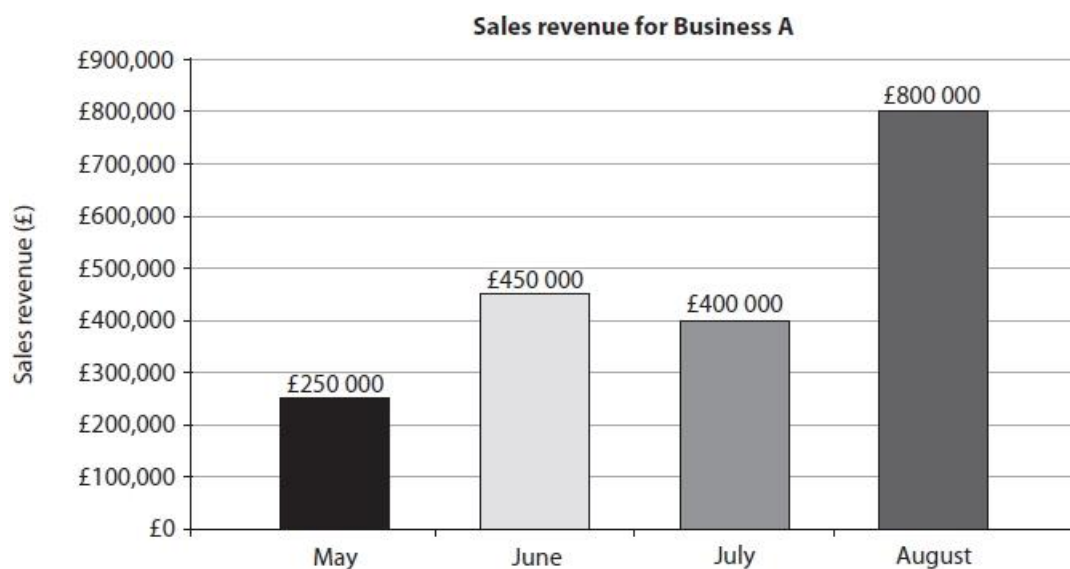


Figure 1

Using the information in Figure 1, calculate the average sales revenue for Business A for the four months between May and August 2016. You are advised to show your workings.

£

Q30.

Figures 2 and 3 show market research information taken from Nando's restaurant in Exeter.

Average quantity of meals sold per day at Nando's restaurant in Exeter

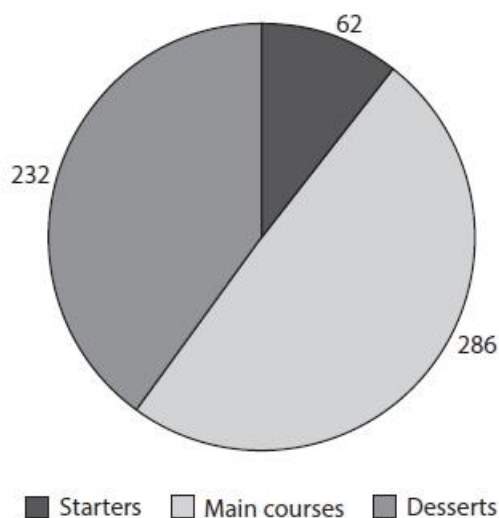


Figure 2

Average price paid for each meal type at Nando's restaurant in Exeter



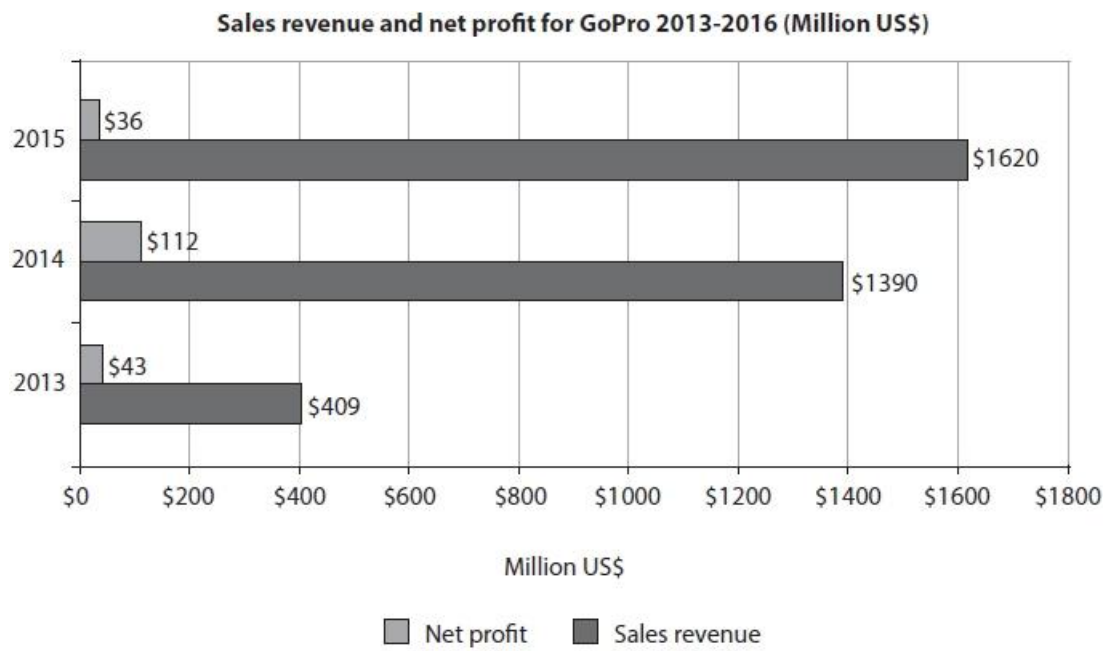
Figure 3

(Source: Interview with manager at Nando's restaurant in Exeter, Princess Hay, Exeter)

Using the information in Figures 2 and 3, calculate the average daily sales revenue generated from main courses at Nando's restaurant in Exeter. You are advised to show your workings.

£

Q31.



(Source: adapted from <http://www.marketwatch.com/investing/stock/GPRO/financials>)

Figure 4

Using Figure 4, identify the year where *GoPro* achieved its lowest net profit margin.

.....

.....

Q32.

Look at Figure 2, read the extract carefully, then answer the question.

Figure 3 shows a bar gate stock graph which details the delivery of ash wood to Fender's factory for 60 days in 2016. During this time it received three deliveries of ash wood from its supplier. These are marked on Figure 3 as A, B and C.

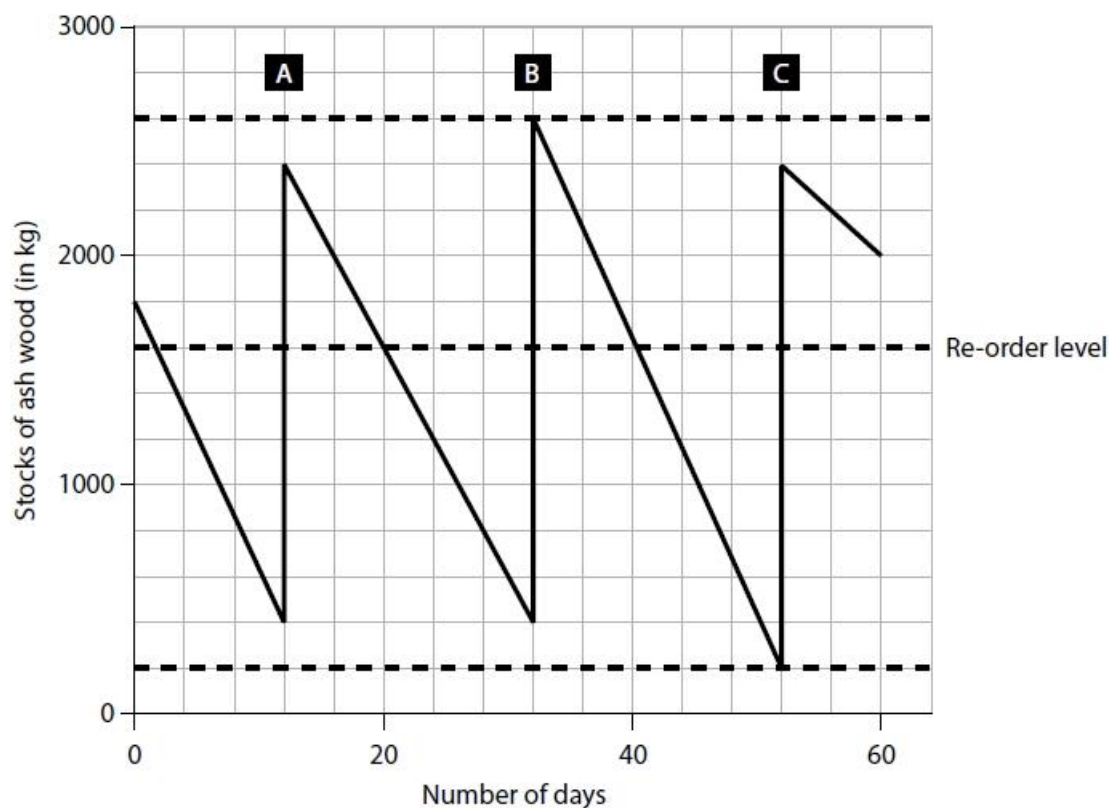


Figure 3

Calculate the amount of ash wood that was delivered to Fender in order B. You are advised to show your workings.

(2)

..... kg

Mark Scheme

Q1.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(£90\,000/£300\,000) \times 100$ (1) Answer: 30% (1)	Award full marks for correct numerical answer without working. Do not award a mark for 30 if the correct unit (%) is not stated.	(2) AO2

Q2.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $((£500\,000 \div 5) \div £50\,000) \times 100$ (1) Answer: 200% (1)	Award full marks for correct numerical answer without working.	(2) AO2

Q3.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $\$6\,779\,511 - \$4\,591\,476$ (1) Answer: \$2 188 035 (1)	Award full marks for correct numerical answer without working.	(2) AO2

Q4.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(\$402\,648 \div \$5\,504\,656) \times 100$ (1) Answer: 7.31%	Award full marks for correct numerical answer without working.	(2) AO2

Q5.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(£2\,000\,000 - £1\,100\,000)$ (1) Answer: £900 000 (1)	Award full marks for correct numerical answer without working.	(2) AO2

Q6.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(232 \div (232 + 62 + 286)) \times 100$ (1) Answer: 40% (1)	Award full marks for correct numerical answer without working.	(2) AO2

Q7.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $£1\,029\,347\,000 - £373\,487\,000$ (1) Answer: £655 860 000 (1) Accept any answers and workings that do not include 000.	Award full marks for correct numerical answer without working.	(2) AO2

Q8.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $£30\,560\,692 - £22\,190\,385$ (1) Answer: £8 370 307 (1)	Award full marks for correct numerical answer without working.	(2) AO2=2

Q9.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(£22\,190\,385 \div £30\,560\,692) \times 100$ (1) Answer: 72.61% (1)	Award full marks for correct numerical answer without working.	(2) A02=2

Q10.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $£1\,164.8\text{m} + £591.8\text{m}$ (1) Answer: £1 756.6 million (1)	Award full marks for correct numerical answer without working.	(2) A02

Q11.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(\$50\,000 + \$41\,000 + \$35\,000) \div 3$ (1) Answer: \$42 000 (1)	Award full marks for correct numerical answer without working.	(2) A02

Q12.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(£55 + £65 + £110 + £60) \div 4$ (1) Answer: £72.50 (1)	Award full marks for correct numerical answer without working.	(2) A02

Q13.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(£100\,000 \div £400\,000) \times 100$ (1) Answer: 25% (1)	Award full marks for correct numerical answer without working.	(2) AO2

Q14.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(£200\,000 \div £200\,000) \times 100$ (1) Answer: 100% (1)	Award full marks for correct numerical answer without working.	(2) AO2

Q15.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(£10\,000 + £70\,000 + £30\,000 + £90\,000) \div 4$ (1) Answer: £50 000 (1)	Award full marks for correct numerical answer without working.	(2) AO2

Q16.

Question Number	Answer	Additional guidance	Mark
	Substitution into correct formula: $£625\,000 - £145\,000$ (1) Answer: £480 000 (1)	Award full marks for correct numerical answer without working.	(2) AO2

Q17.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(100\% - 34.2\% - 23.8\% - 21.3\% - 12.5\%)$ (1) Answer: 8.2% (1)	Award full marks for correct numerical answer without working.	(2) AO2

Q18.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $£575\ 000 - £200\ 000$ (1) Answer: £375 000 (1)	Award full marks for correct numerical answer without working.	(2) AO2

Q19.

Question Number	Answer	Additional guidance	Mark
	Substitution into correct formula: Day 26 - Day 22 (1) Answer: 4 days (1)	Award full marks for correct numerical answer without working.	(2) AO2

Q20.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $((£1\ 500\ 000 - £750\ 000) \div £750\ 000) \times 100$ (1) Answer: 100% (1)	Award full marks for correct numerical answer without working.	(2) AO2

Q21.

Question Number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(\text{£}700\,000 \div (\text{£}700\,000 + \text{£}150\,000 + \text{£}350\,000)) \times 100 \text{ (1)}$ Answer: 58.33% (1)	Award full marks for correct numerical answer without working.	(2) A02

Q22.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $((\$50\,000 - \$35\,000) \div \$50\,000) \times 100 \text{ (1)}$ Answer: 30% or -30% (1)	Award full marks for correct numerical answer without working.	(2) A02

Q23.

Question Number	Answer	Additional guidance	Mark
	Substitution into correct formula: 1,300 portions - 100 portions (1) Answer: 1,200 portions of chicken (1)	Award full marks for correct numerical answer without working.	(2) A02

Q24.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $500 + 1,000 + 800 \text{ (1)}$ Answer: 2,300 units (1)	Award full marks for correct numerical answer without working.	(2) A02

Q25.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(£82\,568\,000 \div £1\,029\,347\,000) \times 100$ (1) Answer: 8.02% (1)	Award full marks for correct numerical answer without working.	(2) A02

Q26.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(£400\,000 \div £900\,000) \times 100$ (1) Answer: 44.44% (1)	Award full marks for correct numerical answer without working.	(2) A02

Q27.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $£500 \times (3000 + 5000 + 4000)$ (1) Answer: £6 000 000 (1)	Award full marks for correct numerical answer without working.	(2) A02

Q28.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $0.4 \times £150 \text{ million}$ (1) Answer: £60 million (1)	Award full marks for correct numerical answer without working.	(2) A02

Q29.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $(£250\,000 + £450\,000 + £400\,000 + £800\,000) \div 4$ (1) Answer: £475 000 (1)	Award full marks for correct numerical answer without working.	(2) AO2

Q30.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $286 \times £14.20$ (1) Answer: £4 061.20 (1)	Award full marks for correct numerical answer without working.	(2) AO2

Q31.

Question number	Answer	Mark
	2015	(1) AO2

Q32.

Question number	Answer	Additional guidance	Mark
	Substitution into correct formula: $2600\text{ kg} - 400\text{ kg}$ (1) Answer: 2 200 kg (1)	Award full marks for correct numerical answer without working.	(2) AO2