N5 Applications of Mathematics

Budgets

2019 PI Q2(b)	Paul is buying a new TV. It is advertised at a price of £825. He decides to use a payment plan to buy the TV. The total cost of the TV using the payment plan is £845.80. The payments are calculated as follows	
	 deposit of ¹/₅ of advertised price 8 equal monthly instalments 	
	final payment of £100.	
	(b) Calculate the monthly instalment.	3
Ans	£72·60	

Fiona plans to rent accommodation.

She needs to work out how much she can afford to spend on rent, electricity and council tax.

The table shows her monthly outgoings.

	Outgoings
Car payment	395
Car insurance	28
Road tax	12
Food	380
Clothes	130
Mobile phone	64
Internet	55
Socialising	250
Loan	200
Savings	200
Total	

(b) Calculate how much she will have available per month for rent, electricity and council tax.

Ans | £715·31

2018 P2 Q10(b)

1

Jennifer is planning to go on a 4 night city break. The costs are shown in the table below.

Flights	£270
Accommodation	£90 per night
Spending money	£450
Insurance	£30

She earns £400 per week.

She saves $\frac{1}{9}$ of her earnings each week towards her city break.

Calculate the minimum number of weeks it will take Jennifer to save enough money for her city break.

23 Ans

2018 PI <u>Q</u>2

(c) To buy a car Grace needs to borrow £4500.

She wants to repay the loan as soon as possible.

She investigates the cost of the loan from five different lenders.

The table shows the repayments for a £4500 loan.

Lender	12 months	24 months	36 months
Tasko	£413·86	£215·07	£150·60
Bank of Shapes	£418·54	£219·31	£157·42
TMS	£458·83	£260·59	£197·74
Premier Bank	£422·46	£214·74	£159·21
Free Bank	£432·99	£234·15	£170·09

Grace assumes that she will earn the same commission each month.

Calculate her new monthly surplus and determine from which lender she should take her loan, and over how many months.

Grace's new monthly surplus is: (£) 418.

3

Ans	Premier bank, 24 months				
2015 P2 Q3	See Area and Perimeter Topic Past Papers				3
Ans					
	From part (a) Adam's 'Take I (b) Adam is going on holid The holiday costs £320 He makes a table to sh He puts the balance in	lay in 13 weeks. I and Adam wants to now his weekly income	o take £200 spend ome and outgoings		
		Income	Outgoings		
	Take home pay				
2014 P1 Q4	Rent		£76		
	Bills		£41		
20	Food		£45		
	Entertainment		£30		
	Transport		£23		
	Holiday Fund				
	Will he have enough money? Justify your answer.			d his spending	3
Ans	Yes he can afford the holiday as he can save £52 more than he needs.				