

UTILITY BILLS PPAQ'S

7. The gas meter readings at the beginning and the end of a period were:

7 5 4 6

7 7 9 2

→ £0.12

The cost of the gas is 12p for each unit. There is also a fixed charge of £22.25. Calculate the cost of the gas.

$$7792 - 7546 = 246 \text{ units}$$

$$\text{Cost of units} = 246 \times 0.12 = £29.52$$

$$\text{Cost of gas} = 29.52 + 22.25 = £51.77$$

[4]

(2)

7. Mr. and Mrs. Gann received their electricity bill. The details were as follows:

Present meter reading 54261
Previous meter reading 52815

Charge per unit £10.56
Service Charge 6.52 pence per unit = £0.0652

VAT 5%

Showing all your working, find the total cost of the electricity including VAT.

$$54261 - 52815 = 1446 \text{ units used}$$

$$\text{Cost of units} = 1446 \times 0.0652 = £94.28$$

$$\text{Cost of electricity} = 94.28 + 10.56 = £104.84$$

$$\text{VAT} = 0.05 \times 104.84 = £5.24$$

$$\text{Total cost} = 104.84 + 5.24 = £110.08$$

[6]

(3)

8. Mr. and Mrs. Franks received their electricity bill. The details were as follows.

Present meter reading 47982
Previous meter reading 46329

Charge per unit 7.3 pence per unit = £0.073
Service Charge £11.25

VAT 5%

Showing all your working, find the total cost of the electricity including VAT.

$$47982 - 46329 = 1653 \text{ units used}$$

$$\text{Cost of units} = 1653 \times 0.073 = £120.67$$

$$\text{Cost of electricity} = 120.67 + 11.25 = £131.92$$

$$\text{VAT} = 0.05 \times 131.92 = £6.60$$

$$\text{Total Cost} = 131.92 + 6.60 = £138.52$$

[5]

(4)

5. Christopher has received his gas bill for the period June to August. The details of the bill are as follows.

Number of units of gas used is 7939.

The cost of one unit of gas is 1.52 pence. = £0.0152

Number of days in this period is 92.

The Standing Charge is 10.39 pence per day. = £0.1039

(a) Find, in pounds, the total cost of the gas, including the standing charge, for the June to August period. Show your working.

$$\text{Cost of units} = 7939 \times 0.0152 = £120.67$$

$$\text{Cost of standing charge} = 92 \times 0.1039 = £9.56$$

$$\text{Total Cost of Gas} = 120.67 + 9.56 = £130.23$$

[4]

(b) V.A.T. at 5% is charged on gas bills.

How much is Christopher's gas bill including V.A.T.? Give your answer in pounds, correct to the nearest penny.

$$\text{VAT} = 0.05 \times 130.23 = £6.51$$

$$\text{Total Bill} = 130.23 + 6.51 = £136.74$$

[6]

8. Colin's gas bill for the period April 1st - June 30th is calculated from the following information.

- Number of units used 198
- Charge per unit 43.8p
- Number of days in this period 91
- Service charge per day 13.39p
- VAT 5%

Showing all your working, find the total cost of the gas including VAT.

$$\text{Cost of Units} = 198 \times 0.438 = £86.72$$

$$\text{Cost of Service Charge} = 91 \times 0.1339 = £12.18$$

$$\text{Cost of Gas} = 86.72 + 12.18 = £98.90$$

$$\text{VAT} = 0.05 \times 98.90 = £4.95$$

$$\text{Total Cost} = 98.90 + 4.95 = £103.85$$

[5]

6

7. The electricity meter readings at the beginning and the end of a period were:

Reading at the end of the period

6	6	7	5
---	---	---	---

Reading at the beginning of the period

6	5	4	3
---	---	---	---

The cost of the electricity is 13p per unit. There is also a fixed charge of £22.25. Complete the following table to find the total cost.

Reading at the end of the period	6675
Reading at the beginning of the period	6543
Number of units used	132
Cost of the units in £	£ 17.16
Fixed charge	£22.25
Total cost	£ 39.41

[4]

16. Mr. Jones' electricity account with Welsh Energy, with some of the entries removed, is shown below. He pays for his electricity by monthly direct debit payments. He gets a discount of £24.25 for paying in that way. Use the information given on the account to complete all of the missing entries and to calculate the balance in Mr. Jones' account.

Welsh Energy Account		Electricity			
Period: 1st March 2009 to 31st May 2009					
J Jones 13 Richmond Road Newport					
Meter reading last time	Meter reading this time	Tariff C-Customer reading E-Estimated reading	Units used	Price of each unit in pence	Amount £
7354	9734		2380	11.25	267.75
		Units used			27.14
		Quarterly charge			£294.89
		Total charges			£14.74
		VAT at 5% of the total charge			
		Balance from previous quarter			21.37 CR
		Total to pay			(A)
		Payments received			
		Direct Debit Discount			24.25 CR
		Payment received 18th March 2009			85.00 CR
		Payment received 18th April 2009			85.00 CR
		Payment received 18th May 2009			85.00 CR
		Balance to carry forward to next quarter			(B)

Working
 (A) $294.89 + 14.74 - 21.37 = £288.26$
 (B) $288.26 - 24.25 - 85 - 85 - 85 = £9.01$

16. Mr. Williams' electricity account with Energy UK, with some of the entries removed, is shown below. He pays for his electricity by monthly direct debit payments. He gets a discount of £26.25 for paying in that way. Use the information given on the account to complete all of the missing entries and to calculate the balance in Mr Williams' account.

Energy UK		Electricity Account			
Period: 1 st July 2010 to 30 th September 2010					
Mr. Williams 54 Alder Road Cardiff					
Meter reading last time	Meter reading this time	Tariff C-Customer reading E-Estimated reading	Units used	Price of each unit in pence	Amount £
4865	6469		1604	12.5	£200.50
		Units used			30.26
		Quarterly charge			£230.76
		Total charge before V.A.T.			£11.54
		V.A.T. at 5% of the total charge			
		Balance from previous quarter			17.82
		Total to pay			(A)
		Payments received			
		Direct Debit Discount			26.25 CR
		Payment received 28 th July 2010			80.00 CR
		Payment received 28 th August 2010			80.00 CR
		Payment received 28 th September 2010			80.00 CR
		Balance to carry forward to next quarter			(B)

Working.
 (A) $230.76 + 11.54 + 17.82 = £260.12$
 (B) $260.12 - 26.25 - 80 - 80 - 80 = £6.13$
 £6.13 is credit.