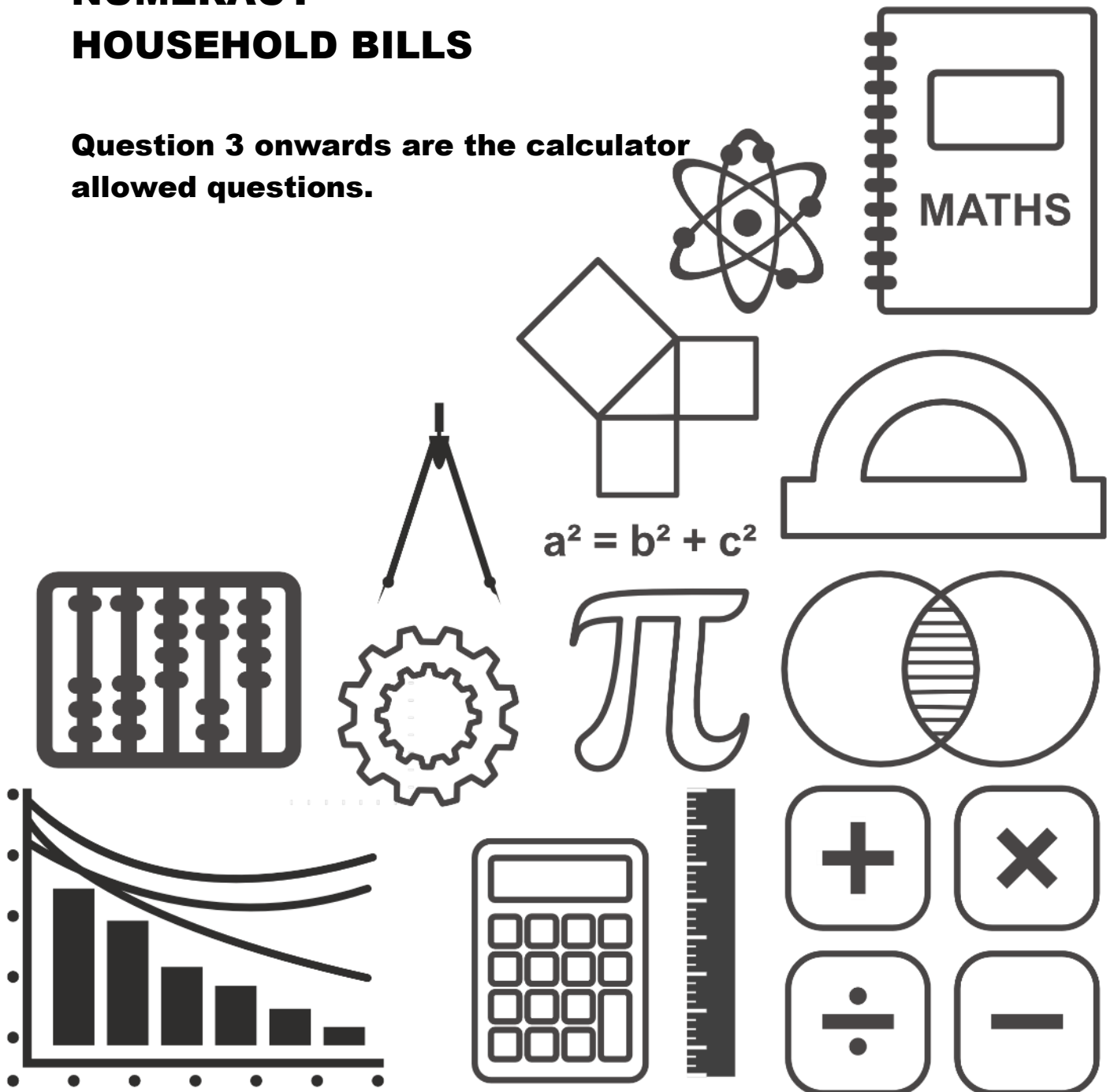


## GCSE TOPIC BOOKLET NUMERACY HOUSEHOLD BILLS

Question 3 onwards are the calculator allowed questions.





2. Megan Pugh's electricity bill is shown below. It covers the period May, June and July 2017.

Megan Pugh 203 Stryd Bryntor Maesgwyn			
Period	Previous meter reading	Present meter reading	Number of units of electricity used
May, June and July 2017	13450	13900	450
<b>Charge for electricity:</b> 450 units at <b>20p per unit</b>		£90.00	
<b>Standing charge:</b> 3 months at <b>£7.60 per month</b>		£22.80	
Total charges:		£112.80	
<b>VAT at 5%:</b> 5% of £112.80		£5.64	
<b>Amount to pay: £112.80 + £5.64 = £118.44</b>			

- (a) On 1 August 2017, the charge per unit for electricity was increased by 5%. What is the increased cost per unit of electricity? Circle your answer.

20.5p                  21p                  21.5p                  22p                  22.5p

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- (b) Megan wants to calculate her next 3-monthly electricity bill. She knows the following:
- Her meter reading on 31 October 2017 was 14400.
  - The charge per unit for electricity has increased by 5% since her last bill.
  - The standing charge has increased by 20p **per month** since her last bill.
  - VAT remains at 5%.

On 31 October 2017, Megan had £470 in her bank account.

After paying her next 3-monthly electricity bill, will Megan be able to buy a new washing machine costing £330?

You must show all your working.

[9]

A series of horizontal dotted lines for writing.





5. Miss Price has received her total bill for water. It is based on estimates of how much fresh water is used and how much waste water is produced. Her bill is £58.80.

Miss Price's **actual** use of water was as follows:

- fresh water used 25.25 m<sup>3</sup>,
- waste water produced 22.31 m<sup>3</sup>.

Fresh water used costs £1.08 per m<sup>3</sup>.

Waste water produced costs £1.70 per m<sup>3</sup>.

(a) *In this part of the question, you will be assessed on the quality of your organisation, communication and accuracy in writing.*

By how much has Miss Price been overcharged or undercharged?  
You must show all your working.

[4 + 2 OCW]

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