A screenshot of a cell phone

Description automatically generated

**Buying and selling**

**Instructions**

* Use **black** ink or ball-point pen.
  + **Fill in the boxes** at the top of this page with your name,  
    centre number and candidate number.
* Answer **all** questions.
* Answer the questions in the spaces provided  
  *– there may be more space than you need.*
* You must **show all your working.**
* Diagrams are **NOT** accurately drawn, unless otherwise indicated.
* If your calculator does not have a *π* button, take the value of *π* to be3.142

unless the question instructs otherwise.

**Information**

* The total mark for this paper is **53**. There are **14** questions.
* Questions have been arranged in an ascending order of mean difficulty, as found by all students in the June 2017–November 2019 examinations.
* The marks for **each** question are shown in brackets  
  *– use this as a guide as to how much time to spend on each question.*

**Advice**

* Read each question carefully before you start to answer it.
* Keep an eye on the time.
* Try to answer every question.
* Check your answers if you have time at the end.

**1** 2 pens cost £2.38

5 folders cost £5.60

Ben wants to buy 20 pens and 20 folders.

He only has £50

Does Ben have enough money to buy 20 pens and 20 folders?

You must show how you get your answer.

**(Total for Question 1 is 4 marks)**

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**2** Annie sold

45 books at £1.20 each

34 candles at £1.50 each

some calendars at 90p each

She got a total of £150

Work out how many calendars Annie sold.

.......................................................

**(Total for Question 2 is 4 marks)**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**3** Neil buys 30 pens, 30 pencils, 30 rulers and 30 pencil cases.

|  |  |
| --- | --- |
| **Price list** |  |
| pens | 6 for 82p |
| pencils | 15 for 45p |
| rulers | 10 for £1.25 |
| pencil cases | 37p each |

What is the total amount of money Neil spends?

£......................................................

(**Total for Question 3 is 5 marks**)

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**4** Dylan buys 13 bicycle lights for £7.50 each.

He pays with five £20 notes.

(*a*)How much change should Dylan get?

£.......................................................

**(3)**

The normal price of a bicycle is £120

In a sale, there is  off the normal price of the bicycle.

(*b*)Work out the price of the bicycle in the sale.

£.......................................................

**(2)**

(**Total for Question 4 is 5 marks**)

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**5** Packs of batteries cost £2.85 each.

Ben has £45 to spend on batteries.

Ben buys as many packs of batteries as he can.

Work out how much change he should get from £45

£ .......................................................

**(Total for Question 5 is 3 marks)**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**6** Denise wants to give a pen set to every student in her school.

There are 799 students in the school.

Denise already has 102 pen sets.

She will need to buy more pen sets.

Each pen set costs 89 pence.

(a) Work out an estimate for the total cost of the pen sets Denise needs to buy.

.........................................

**(3)**

(b) Is your answer to (a) an underestimate or an overestimate?

Give a reason for your answer.

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**(1)**

**(Total for Question 6 is 4 marks)**

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**7** Trevor buys a boat.

The cost of the boat is £14 200 plus VAT at 20%

Trevor pays a deposit of £5000

He pays the rest of the cost in 10 equal payments.

Work out the amount of each of the 10 payments.

£ .......................................................

**(Total for Question 7 is 4 marks)**

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**8**

|  |
| --- |
| Cafe Price List  tea 65p  coffee 79p  hot chocolate 84p |

Dylan and some friends went to the cafe.

Dylan bought himself a cup of tea.

He bought each of his friends a cup of coffee.

He paid with a £10 note.

He got £4.61 change.

How many friends were with Dylan at the cafe?

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**(Total for Question 8 is 4 marks)**

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**9** Berenika wants to buy 35 T-shirts.

Each T-shirt costs £5.80.

Berenika does the calculation 40 × 6 = 240 to estimate the cost of 35 T-shirts.

(*a*)Explain how Berenika’s calculation shows the actual cost will be less than £240.

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......................................................................................................................................................

**(1)**

There is a special offer.

|  |
| --- |
| T-shirts £5.80 each. |
| Buy 30 or more T-shirts. |
| Get 10% off the total cost. |

(*b*)Work out the actual cost of buying 35 T-shirts using the special offer.

£.......................................................

**(4)**

**(Total for Question 9 is 5 marks)**

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**10** Franco buys a house for £146 500

He sells the house for £158 220

Calculate the percentage profit Franco makes.

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**(Total for Question 10 is 3 marks)**

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**11** Cups are sold in packs and in boxes.

There are 12 cups in each pack.

There are 18 cups in each box.

Alison buys *p* packs of cups and *b* boxes of cups.

Write down an expression, in terms of *p* and *b*, for the total number of cups Alison buys.

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**(Total for Question 11 is 2 marks)**

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**12** Raya buys a van for £8500 plus VAT at 20%

Raya pays a deposit for the van.

She then pays the rest of the cost in 12 equal payments of £531.25 each month.

Find the ratio of the deposit Raya pays to the total of the 12 equal payments.

Give your answer in its simplest form.

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(**Total for Question 12 is 5 marks**)

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**13** Emily buys a pack of 12 bottles of water.

The pack costs £5.64

Emily sells all 12 bottles for 50p each.

Work out Emily’s percentage profit.

Give your answer correct to 1 decimal place.

......................................................%

**(Total for Question 13 is 3 marks)**

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**14** In a sale, the normal price of a book is reduced by 30%.

The sale price of the book is £2.80.

Work out the normal price of the book.

£.......................................................

**(Total for Question 14 is 2 marks)**

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**TOTAL MARKS FOR PAPER: 53**