testbase

Week 6

Rounding

Name: _____

Class: _____

Date: _____

Time: **25 minutes**

Marks: **25 marks**

Comments:

1 Dev thinks of a **whole** number.

He multiplies it by 4

He rounds his answer to the nearest 10

The result is 50

Write **all** the possible numbers that Dev could have started with.

_____

2 marks

2 **Arrangements**

Here are some number cards:

1	7	3	5

You can use each card once to make the number 1,735, like this:

1	7	3	5

(a) What is the **biggest** number you can make with the four cards?

1 mark

(b) Explain why you **cannot** make an **even** number with the four cards.

_____

_____

1 mark

(c)

1	7	3	5

Use some of the four number cards to make numbers that are **as close as possible** to the numbers written below.

Examples

80 → | 7 | 5 |

30 → | 3 | 1 |

You must **not** use the same card more than once in each answer.

50 → | | |

1 mark

60 → | | |

1 mark

4000 → | | | | |

1 mark

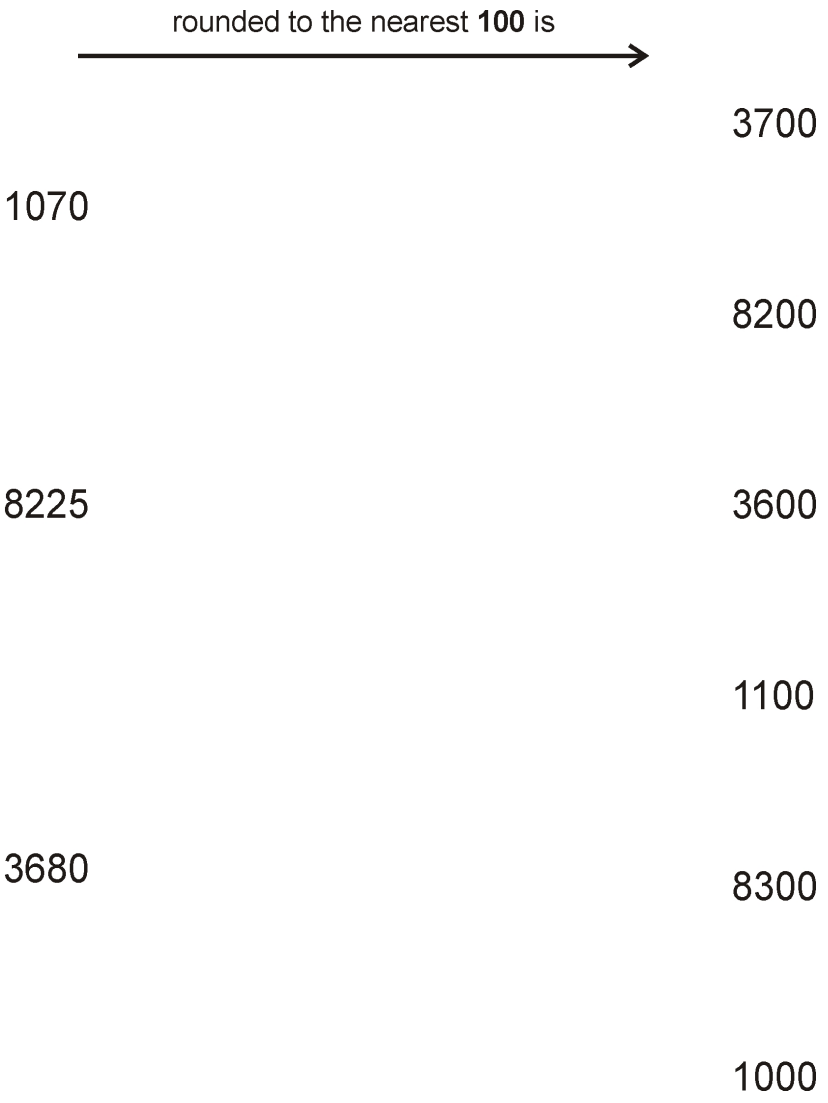
1500 → | | | | |

1 mark

1600 → | | | | |

1 mark

3 Draw arrows.



1 mark

4 Complete the table.

Number	Rounded to nearest 1000	Rounded to nearest 100,000
385,704		400,000
809,601		

2 marks

5 Round **124,531**

to the nearest 10,000 ☐

to the nearest 1,000 ☐

to the nearest 100 ☐

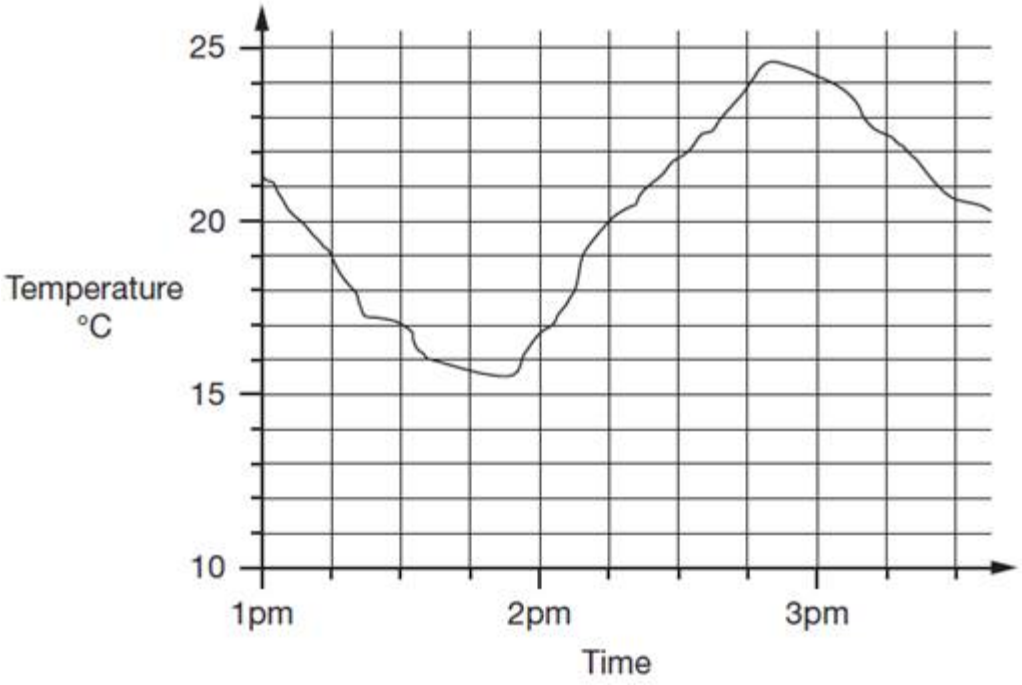
2 marks

6 Circle the number **closest** in value to **0.1**

0.01 **0.05** **0.11** **0.2** **0.9**

1 mark

7 This graph shows how the temperature changed in Liam's room one afternoon.



Estimate the temperature at 3:15pm.

°C

1 mark

Estimate the time when the temperature was highest.

pm

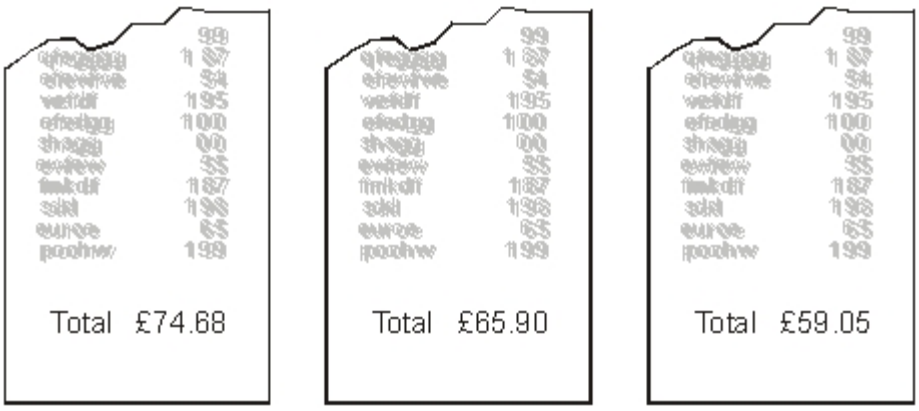
1 mark

How much did the temperature change from 2pm to 2:30pm? Give your answer to the **nearest degree**.

degrees

1 mark

8 Here are three supermarket bills.



Tom rounds each bill **to the nearest £10** and then adds them up.

What is the total amount that Tom gets?

£

1 mark

Mary adds up the three bills **exactly**.

What is the total difference between her total and Tom's total?

Show your method

2 marks

9 Complete this table by rounding the numbers to the **nearest hundred**.

	Rounded to the **nearest hundred**
20,906	
2,090.6	
209.06	

2 marks

10 The **difference** between two numbers is 2

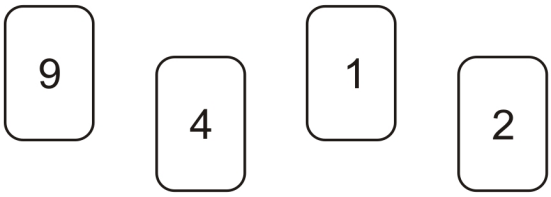
When each number is rounded to the nearest hundred, the difference between them is 100

Write what the two numbers could be.

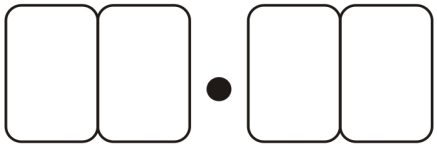
and

1 mark

11 Here are four digit cards.



Use each digit card **once** to make the decimal number **nearest to 20**



1 mark

Mark schemes

1

Award **TWO** marks for 12 **AND** 13

If the answer is incorrect, award **ONE** mark for:

- only one correct number and no incorrect number

OR

- 12 **AND** 13 **AND** not more than one incorrect number.

*Accept for **ONE** mark an answer of 48 **AND** 52 **AND** no more than one incorrect number.*

Up to 2m

[2]

2

(a) Indicates 7531

1

(b) Indicates that all the cards are odd, eg:

- You need to end in an even number.
- There isnt an even card.
- None of them are in the 2 times table.
- You cannot make an even number out of odd cards.
- There must be an even number card.

Accept 'uneven' as a term for 'odd
eg:

- *'They are all uneven numbers.'*

***Do not accept** explanations which imply that all of the cards must be even eg:*

- *'You cannot make an even number if you have an odd card.'*
- *'They are not even numbers.'*
- *'Most of them are odd.'*
- *'They must be even number cards.'*

1

(c) Indicates 51

1

Indicates 57

1

(d) Indicates 3751

1

Indicates 1537

1

Indicates 1573

1

[7]

3 1070 → 1100
8225 → 8200
3680 → 3700

*All correct for **1 mark.***

[1]

4 All three numbers correct or any two correct

Number	Rounded to nearest 1000	Rounded to nearest 100 000
385 704	386 000	400 000
809 601	810 000	800 000

2

or

Any two correct

1

[2]

5 Award **TWO** marks for all three numbers correctly rounded:

120,000

125,000

124,500

If the answer is incorrect, award **ONE** mark for any two numbers correctly rounded.

Up to 2

[2]

6 0.01 0.05 **0.11** 0.2 0.9

Accept unambiguous alternatives, eg the number crossed or underlined.

[1]

7 (a) Accept answers in the range 22.2 to 22.8 exclusive.

***Do not** accept 22.2 or 22.8*

1

(b) Accept answers in the range 2:48pm to 2:52pm inclusive.

The answer is a specific time.

1

(c) 5

1

[3]

8 (a) £200

1

(b) Award **TWO** marks for the correct answer of 37p **OR** £0.37

OR

for finding the correct difference between £199.63 and the answer given for 13a

*Answer to (a) must be a multiple of £10 for the award of **TWO** follow-through marks.*

If the answer is incorrect, award **ONE** mark for evidence of appropriate method, eg

74.68 + 65.90 + 59.05 = 199.63

200 – 199.63

OR

for evidence of an appropriate method to find the correct difference between £199.63 and the answer given for (a).

*Answer need not be obtained for the award of **ONE** mark.*

*Accept for **ONE** mark £37p **OR** 0.37p **OR** £37 as evidence of appropriate method.*

Up to 2

[3]

9 Award **TWO** marks for three boxes completed correctly as shown:

	Rounded to the **nearest hundred**
20,906	20,900
2,090.6	2,100
209.06	200

If the answer is incorrect, award **ONE** mark for two boxes correct.

Up to 2m

[2]

10 Two numbers with a difference of 2, in the range 48 **inclusive** to 52 **exclusive** eg:

- 48 **AND** 50

OR

- 51.9 **AND** 49.9

OR

any pair of numbers that differ from those above by a multiple of 100 and have a difference of 2, eg:

- 149 **AND** 151

OR

- 648 **AND** 650

Numbers can be given in either order.

U1

[1]

11 19.42

[1]