

1

Complete the table.

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

2 marks

2

Lara chooses a **square number**.



She rounds it to the nearest hundred.

Her answer is 200

Write **all** the possible square numbers Lara could have chosen.

.....

2 marks

3

A box of sticky labels costs £33.50

There are 150 sheets of labels in the box.

There are 14 labels on each sheet.



What is the cost of one label **to the nearest penny**?



Show your method

A large grid for showing the method. A small rectangle labeled 'p' is drawn in the bottom right corner of the grid.

2 marks

4

Chen chooses a **prime** number.

He multiplies it by 10 and then rounds it to the nearest hundred.

His answer is **400**.

Write **all** the possible prime numbers Chen could have chosen.



.....

2 marks

5

Runa and Jon each start with the same number.

Runa rounds the number to the nearest hundred.

Jon rounds the number to the nearest ten.

Runa's answer is double Jon's answer.

Explain how this can be.



A large, empty, cloud-shaped bubble for writing an explanation.

1 mark

**6**

This weather chart shows the highest and lowest temperatures in a town on five days in March.

	Temperature °C	
	highest	lowest
Monday	+7	0
Tuesday	+7	-2
Wednesday	+8	-2
Thursday	+9	+1
Friday	+4	-5

Which day has the greatest difference between the highest and the lowest temperatures?

.....

1 mark

What is the difference between the lowest temperatures on Thursday and Friday?

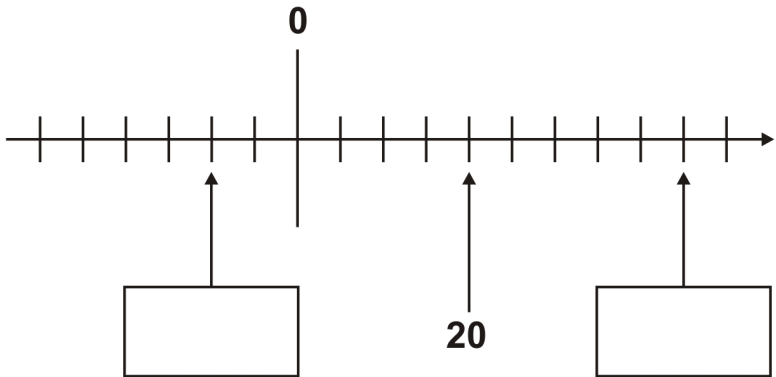
degrees

1 mark

7

Here is part of a number line.

Write the missing numbers in the boxes.

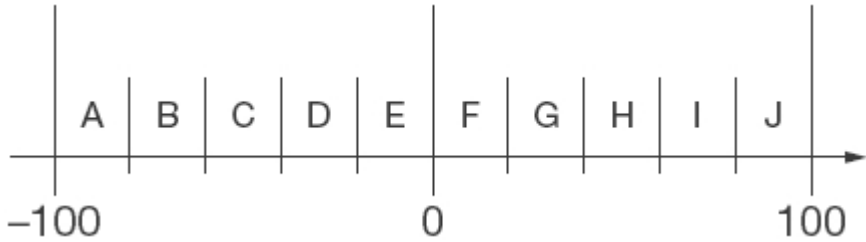


2 marks

8

Here is part of a number line.

It is divided into equal sections.



Write the letter of the section where each of these numbers belongs.

The number 99 has been done for you.

number	section
99	J
29	
-83	
-15	
44	

2 marks

9

Megan makes a sequence of numbers starting with **100**.

She **subtracts 45** each time.

Write the next **two** numbers in the sequence.

*100* **100**   **55**   **10**     

2 marks

## Mark schemes

1

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]

2

Award **TWO** marks for all three numbers, as shown:

169 **AND** 196 **AND** 225

*Accept numbers written in any order.*

*All three numbers and no incorrect numbers must be given for the award of **TWO** marks.*

*Accept for **TWO** marks:*

- $13^2$  **AND**  $14^2$  **AND**  $15^2$

**OR**

- $13 \times 13$  **AND**  $14 \times 14$  **AND**  $15 \times 15$

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

- two numbers correct and none incorrect

**OR**

- three numbers correct and one incorrect.

*Accept for **ONE** mark:*

**13 AND 14 AND 15**

Up to 2 (U1)

[2]

3

2

*! Money*

2

**or**

Shows the digits 15(...) or 16 as evidence of a correct method (*correct value but not correctly rounded to the nearest penny*), eg:

- 1.5(...)

**Do not accept** *Do not accept 150 as showing digits 15(...)*  
*(restates value from question)*

**OR**

Shows or implies a complete correct method, eg:

- $£33.50 \div 150 = 0.22$   
 $0.22 \div 14$
- $150 \times 14 = 2100$   
 $£33.50 \div 2100$

*! Inconsistent conversions*  
*Within an otherwise correct method condone inconsistent conversions between pence and pounds*

**OR**

Shows a method for evaluating the cost of the labels at 1p and 2p each, eg:

- $14 \times 150 = 2100$   
 $2 \times 2100 = £42$   
 $1 \times 2100 = £21$

1

[2]

4

Gives only the three correct prime numbers in any order, ie:

- 37, 41, 43

2

**or**

Gives at least two correct prime numbers **and** not more than one incorrect number, eg:

- 37, 39, 41, 43
- 39, 41, 43
- 41, 43

1

[2]

**5**

Gives a correct explanation with a number  $x$  such that  $50 \leq x < 55$ , or  $-5 < x < 5$ , as an example, eg:

- 53 to the nearest hundred is 100, and to the nearest ten is 50 and  $2 \times 50 = 100$
- If it's 50 or more but less than 55 it will round to 100 (nearest hundred) and 50 (nearest ten) and 100 is double 50
- 0 is 0 to the nearest 100 and 0 to the nearest 10 and twice 0 is 0

*Accept minimally acceptable explanation, eg:*

- 51 rounds to 50 and 100
- $54 \rightarrow 50$  and  $54 \rightarrow 100$
- 50 rounds to 100
- 0 rounds to 0

**Do not accept** incomplete or incorrect explanation, eg:

- They used 51
- $50 \times 2 = 100$
- They could use between 50 and 55, which round to 100

U1

[1]

**6**

Wednesday

*Accept unambiguous abbreviations or recognisable misspellings.*

1

6

**Do not accept** -6

1

[2]

**7**

(a) -10

**Do not accept** 10-

1

(b) 45

1

[2]



**8**

Award **TWO** marks for all four letters in the correct order as shown:

99 J

29 G

-83 A

-15 E

44 H

If the answer is incorrect, award **ONE** mark for three letters correct.

Up to 2

[2]

**9**

(a) -35 (in left-hand box)

*Accept for **ONE** mark '35-' AND '80-'*

1

(b) -80 (in right-hand box)

*Accept for **ONE** mark any two **negative** numbers such that the second is 45 less than the first.*

1

[2]