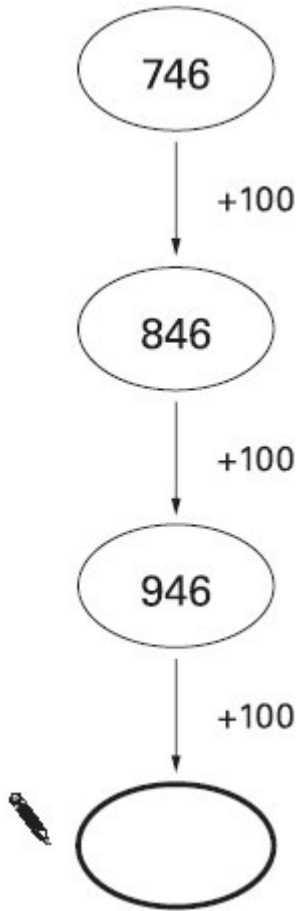


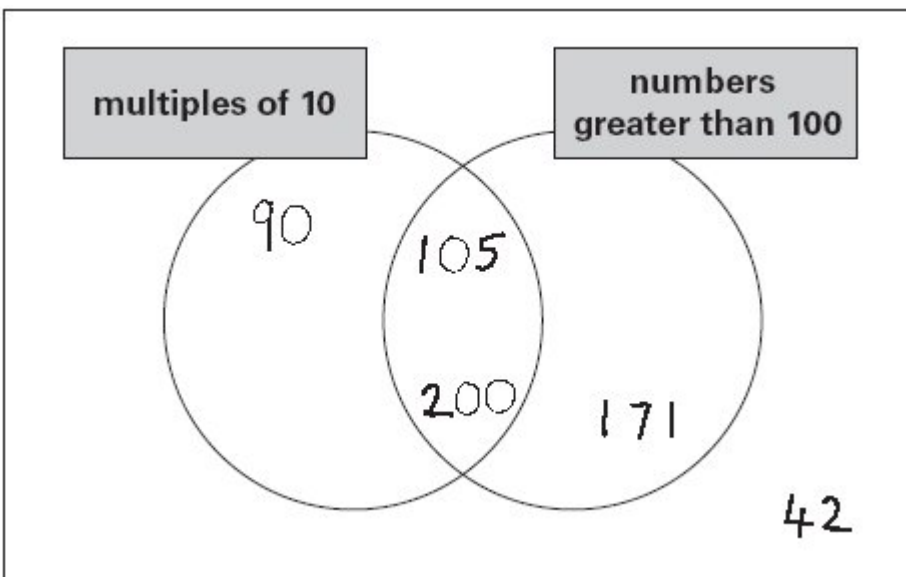
1 Write in the missing number.



1 mark

2 One number is in the **wrong** place on the sorting diagram.

Put a cross (✗) on it.



1 mark

**3** The numbers in this sequence increase by the same amount each time.

Write the two missing numbers.

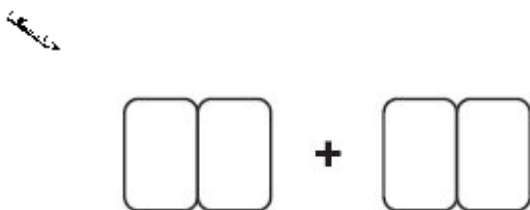


2 marks

**4** Here are four digit cards.



Use each of the digits **once** to make a **total that is a multiple of 5**



1 mark

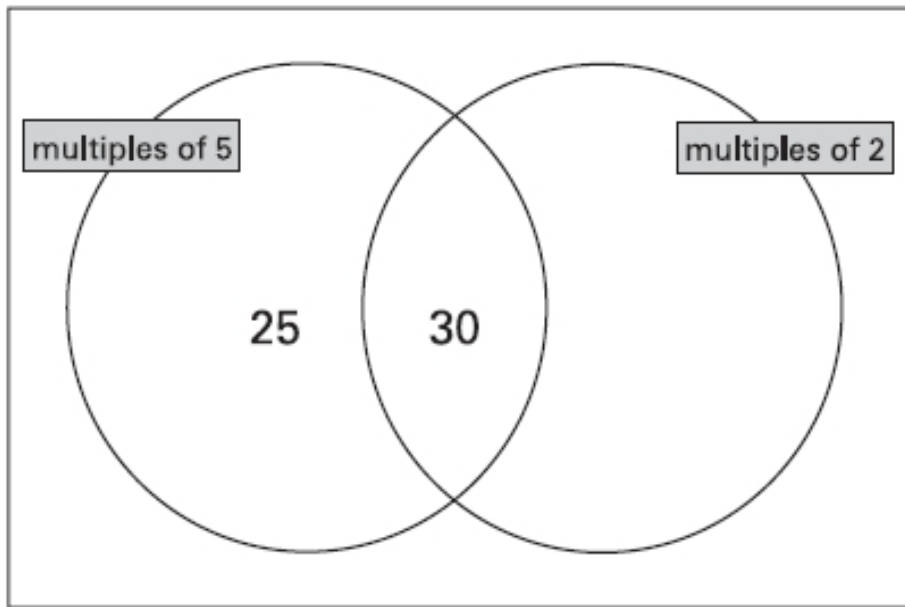
**5** Circle all the **multiples of 8** in this list of numbers.



1 mark

**6** Write **each of** these numbers in its correct place on the sorting diagram.

**40                      8                      15**

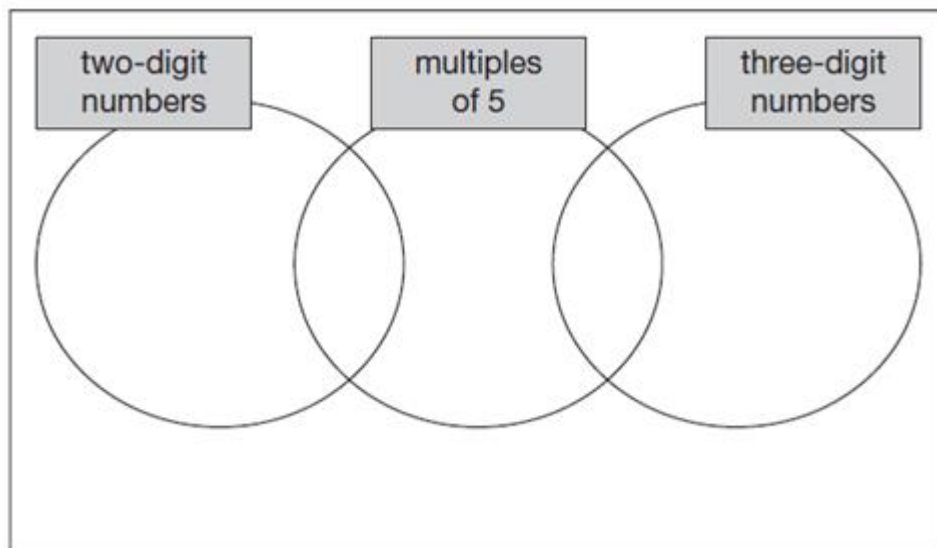


2 marks

**7** Here is a diagram for sorting numbers.

Write **each** number in its correct place on the diagram.

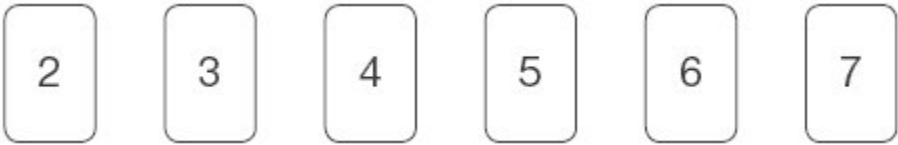
**2                      20                      201                      2000**



2 marks

8

Here are six digit cards.



Use **all six** digit cards to make three multiples of 3



1 mark

9

Amir says,

*'All numbers that end in a 4 are multiples of 4'.*

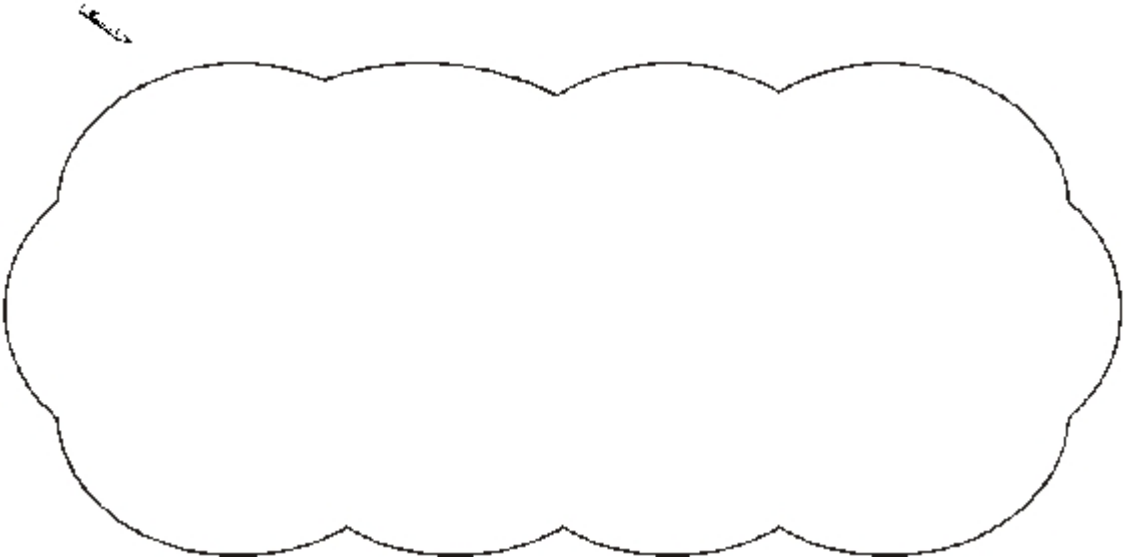


Is he correct?

Circle **Yes** or **No**.

 Yes / No

Explain how you know.



1 mark

10

The numbers in this sequence increase by 3 each time.

3      6      9      12    ...

The numbers in this sequence increase by 5 each time.

5      10     15     20    ...

Both sequences continue.

Write a number **greater than 100** which will be in **both** sequences.

Show your method

The grid is 20 columns wide and 10 rows high. A rounded rectangle on the left side contains the text "Show your method". A smaller empty rectangle is located in the lower right quadrant of the grid, spanning approximately 6 columns and 2 rows.

2 marks

Mark schemes

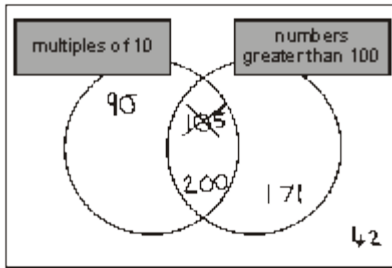
1

1046

[1]

2

Number crossed as shown:



Accept any other clear way of indicating the appropriate number, such as a circle or a tick.

[1]

3

(a) 570 in the first box.

1

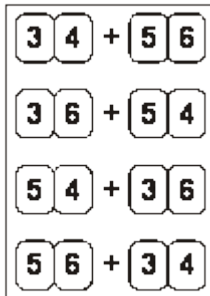
(b) 730 in the last box

1

[2]

4

OR



OR

OR

If four numbers must be correctly placed in the boxes for the award of the mark.

[1]

5

All three numbers circled as shown:

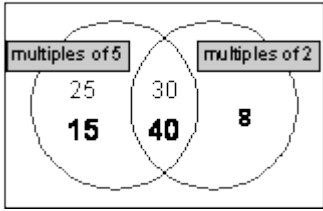
18    32    56    68    72

Do not award the mark if additional incorrect numbers are circled. Accept unambiguous alternatives, eg ticks, numbers crossed or underlined.

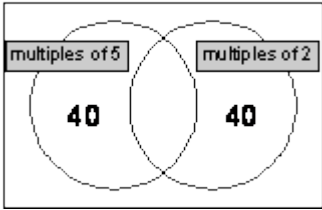
[1]

6

Award **TWO** marks for all three numbers placed in the regions as shown.



*Do not accept a number repeated in different regions, eg*



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

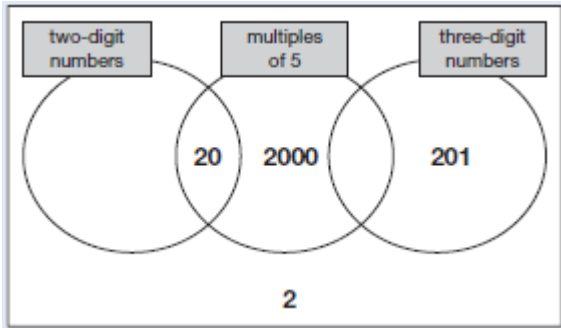
*Do not penalise answers which offer additional numbers (other than 8, 15 and 40) on the diagram, whether correctly placed or not.*

Up to 2

[2]

7

Award **TWO** marks for all four numbers correctly placed as shown:



If the answer is incorrect, award **ONE** mark for three numbers correctly placed.

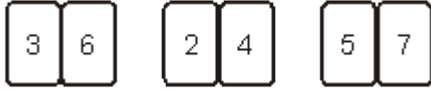
*Do not accept numbers written in more than one region. Accept alternative unambiguous indications, eg lines drawn from the numbers to the appropriate regions of the diagram.*

Up to 2m

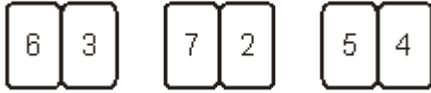
[2]

**8**

Three multiples of 3, eg:



OR



*Multiples may be given in any order.*

*Digits may be in either order, eg 24 OR 42*

**Do not** accept digits used more than once.

**Do not** accept digits other than those shown.

U1

[1]

**9**

An explanation which gives a counter-example to illustrate that not all numbers ending in 4 are multiples of 4, eg:

- '14 is not a multiple of 4'
- '4, 24 and 44 are multiples of 4, but not 14 and 34'
- '14 or 34 don't work'
- '54'

OR

an explanation which recognises that only numbers ending in 4 which have an even number of tens are multiples of 4, eg:

- 'It has to have an even number of 10s as well, like 20 or 40'
- '14, 24, 34, 44, 54, 64 – only half of them are'
- '4 doesn't go into 10 so 14 isn't'.

*No mark is awarded for circling 'No' alone.*

**Do not** accept vague or incomplete explanations, eg:

- 'Some numbers end in a 4 but aren't multiples of 4'
- '16 doesn't end in 4'
- 'Not all multiples of 4 end in 4'
- '24 is a multiple of 4 but the next one isn't'
- '4, 8, 12, 16, 20, 24 etc'.

*If 'Yes' is circled but a correct, unambiguous explanation is given, then award the mark.*

U1

[1]



**10**

Award **TWO** marks for a multiple of 15 which is greater than 100, eg

105 **OR** 120 **OR** 135 **OR** 150 **OR** 300

*Accept more than one answer if all are correct.*

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

*Accept for **ONE** mark 30, 45, 60, 75 **OR** 90*

• 90 93 96 99 102 105 108 ...  
90 95 100 105 110 115 ...

← *Not spotting matching number (105)*

• 90 93 96 98 101 104 107 **110** ...  
90 95 100 105 **110** 115 ...

← *One step size incorrect (96 to 98)*

• 15 30 45 60 75 80 95 110 **125**

← *One step size incorrect (75 to 80)*

•  $3 \times 5 \times 20$   
OR  
 $15 \times 10$

← *Multiple greater than 100 but not calculated*

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

Up to 2

**[2]**