## Q1.

The numbers in this sequence increase by the same amount each time.
Write in the missing numbers


Q2.
The first two numbers in this sequence are 2.1 and 2.2
The sequence then follows the rule

## 'to get the next number, add the two previous numbers'

Write in the next two numbers in the sequence.


Q3.
In this sequence each number is double the previous number.
Write in the missing numbers.


36
$6 \quad 12$
24
48


2 marks

Q4.
Here is part of a number grid.

| 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: |
| 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 21 |

Here is another part of the same grid.
Write in the missing number.


Q5.
Here is part of a number square.
The shaded numbers are part of a sequence.

| 113 | 114 | 115 | 116 |
| :---: | :---: | :---: | :---: |
| 123 | 124 | 125 | 126 |
| 133 | 134 | 135 | 136 |
| 143 | 144 | 145 | 146 |

Explain the rule for the sequence.


1 mark

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Mark schemes

Q1.

| 1 | 5 | $\mathbf{9}$ | 13 |
| :--- | :--- | :--- | :--- |

Q2.
Award TWO marks for the correct answer of

### 10.8 AND 17.3

If the answer is incorrect, award ONE mark for
either
1 m 0.8 in the first box
or
a number in the second box, which is 6.5 greater than the answer given in the first box.
Numbers must be in the correct order.
Up to 2

Q3.
Award TWO marks for the sequence completed as shown:

If the answer is incorrect, award ONE mark for two numbers correct.
Accept answers as fractions, eg , $3 / 4,11 / 2$
Accept for ONE mark

- the number in the third box is 96 AND
- the number in the first box is half of the number in the second box eg


96

Do not award any marks if all numbers are whole numbers.

Q4.
Chart completed as shown:


## Q5.

Accept an explanation which recognises that consecutive or adjoining shaded numbers have a difference of 9 , eg

- 'You are adding 9 each time';
- 'The numbers are going up by 9 each time';
- 'The numbers go down by 9 each time';
- 'The rule is to add 10 and subtract 1 ';
- 'It is going down one in the units and up one in the tens'.

Do not accept an explanation that is vague or arbitrary, eg

- 'The numbers get bigger';
- 'The numbers get smaller';
- 'The rule is to go down 116, 125, 134, 143',
- 'The units are going down and tens are going up'.

Do not accept:

- 'The numbers are multiples of 9 '.

