Q1.
Here is part of a number line.
Write the missing numbers in the boxes.


Q2.

Here is part of a number line.


What is the value of $\mathbf{X}$ ?
$X=\square$

What is the value of $\mathbf{Y}$ ?

$$
Y=\square_{1 \text { mark }}
$$

Q3.
Here is part of a temperature scale.


What is the temperature shown at $\mathbf{A}$ ?


1 mark
What temperature is 20 degrees higher than $\mathbf{A}$ ?


Q4.
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 |  |

## Q5.

Here is part of a number line.
Write the missing numbers in the boxes.


Q6.
Here is part of a time line.
Draw a line from each invention to the correct point on the time line.
One has been done for you.


Q7.
Here is part of a number line.
Write the missing numbers in the boxes.


Q8.
Here is part of a number line.

Write the number shown by the arrow.


Q9.
Here are the temperatures in four cities at midnight and at midday.

|  | Temperature |  |
| :--- | :---: | :---: |
| City | At midnight | At midday |
| Paris | $-4^{\circ} \mathrm{C}$ | $-2^{\circ} \mathrm{C}$ |
| Oslo | $-13^{\circ} \mathrm{C}$ | $-7^{\circ} \mathrm{C}$ |
| Rome | $3^{\circ} \mathrm{C}$ | $10^{\circ} \mathrm{C}$ |
| Warsaw | $-6^{\circ} \mathrm{C}$ | $2^{\circ} \mathrm{C}$ |

At midnight, how many degrees colder was Paris than Rome?

## degrees

1 mark
Which city was 6 degrees colder at midnight than at midday?
$\qquad$
1 mark

Q10.
This table shows the temperature at 9 am on three days in January.

| 1st January | 8th January | 15th January |
| :---: | :---: | :---: |
| $+5^{\circ} \mathrm{C}$ | $-4^{\circ} \mathrm{C}$ | $+1^{\circ} \mathrm{C}$ |

What is the difference between the temperature on 1st January and the temperature on 8th January?


On 22nd January the temperature was 7 degrees lower than on 15th January.
What was the temperature on 22nd January?


## Q11.

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

|  | Temperature $^{\circ} \mathrm{C}$ |  |
| :--- | :---: | :---: |
|  | 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?

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


1 mark

## Q12.

The number 7.5 is halfway between 5 and 10


Write in the missing numbers.


## Q13.

Liam makes a sequence of numbers starting with 300
He subtracts 125 each time.
Write the next two numbers in Liam's sequence.


Q14.


The temperature inside an aeroplane is $20^{\circ} \mathrm{C}$.
The temperature outside the aeroplane is $-30^{\circ} \mathrm{C}$.
What is the difference between these temperatures?


1 mark

## Q15.

Circle two numbers which have a difference of 2

## $\begin{array}{llllll}-1 & -0.5 & 0 & 0.5 & 1 & 1.5\end{array}$

1 mark

Q16.
Megan makes a sequence of numbers starting with 100
She subtracts 45 each time.
Write the next two numbers in the sequence.


Mark schemes

## Q1.

Award TWO marks for both numbers correct as shown.


If the answer is incorrect, award ONE mark for one number correct.

## Do not accept 12-

Accept +2 in the right-hand box.

Q2.
(a) $X=125$
(b) $Y=-75$

Do not accept 75-

Q3.
(a) $-7^{\circ} \mathrm{C}$

Do not accept 7-
(b) $13^{\circ} \mathrm{C}$

If (a) is negative allow follow through in part (b) for ONE mark.

Q4.
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.

Q5.
(a) -10

Do not accept 10-
(b) 45

Q6.
(a) Answer for tin can joined to the time line in the range 1805 to 1815 exclusive.
(b) Answer for computer joined to the time line in the range 1940 to 1950 exclusive.

## Q7.

(a) -100 written in the left-hand box.

Do not accept 100-
(b) 150 written in the right-hand box.


Q8.
1000 ½ OR 1000.5
Accept the answer in words, eg

- '1000 and a half'.

Q9.
(a) 7
Do not accept -7 or 7-
(b) Oslo

Accept unambiguous abbreviations or recognisable misspellings.

Q10.
(a) 9

> Do not accept-9 or 9-
(b) $\quad-6$

Do not accept 6-

## Q11.

Wednesday
Accept unambiguous abbreviations or recognisable misspellings.

6
Do not accept-6

Q12.
(a) 4.9

Accept equivalent fractions and decimals
(b) -0.5

$$
\text { Accept }-\frac{1}{2}
$$

## Q13.

(a) -75 in the first box

Do not accept 75-
(b) -200 in the second box

Do not accept 200-
Accept a number 125 less than the answer to (a), provided the answer to 18a is negative.

Q14.
50
Accept-50

Q15.
(-1) 0.
$0 \quad 0.5$


OR


Accept alternative indications, eg the numbers crossed or underlined.

Q16.
(a) -35 (in left-hand box)

Accept for ONE mark ‘35-' AND ‘80-'
(b) -80 (in right-hand box)

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

