

Negative Numbers

Mark Scheme

Level	GCSE
Subject	Maths
Exam Board	Edexcel GCSE
Topic	Negative Numbers
Grade Level	Grade 1/2
Booklet	Mark Scheme

Time Allowed: 34 minutes

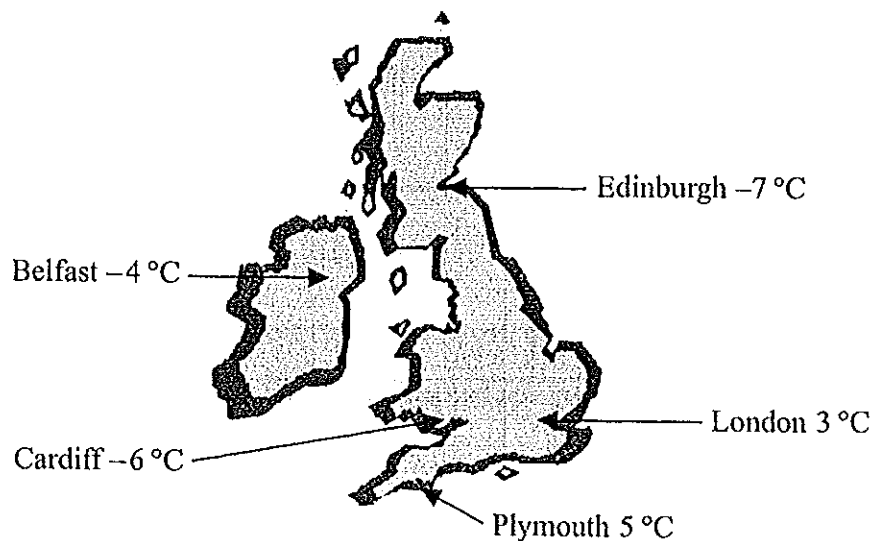
Score: /28

Percentage: /100

Grade Boundaries:

1. Here is a map of the British Isles.

The temperatures in some places, one night last winter are shown on the map.



- (a) (i) Write down the names of the two places that had the biggest difference in temperature.

Edinburgh and Plymouth

- (ii) Work out the difference in temperature between these two places.

12 °C

(3)

- (b) Two pairs of places have a difference in temperature of 2 °C.
Write down the names of these places.

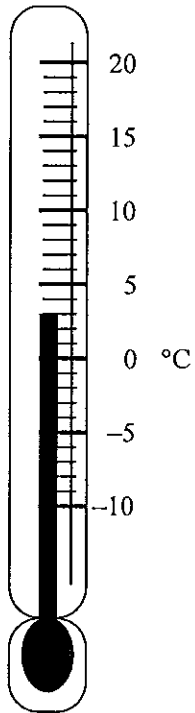
(i) Belfast and Cardiff

(ii) London and Plymouth

(2)

(Total 5 marks)

2.



(a) Write down the temperature shown on the thermometer.

.....³..... °C

(1)

The temperature falls by 8°C.

3 - 8

(b) Work out the new temperature.

.....⁻⁵..... °C

(1)

(Total 2 marks)

3. Sally wrote down the temperature at different times on 1st January 2003.

Time	Temperature
midnight	-6°C
4 am	-10°C
8 am	-4°C
noon	7°C
3 pm	6°C
7 pm	-2°C

- (a) Write down

- (i) the **highest** temperature,

.....7..... $^{\circ}\text{C}$

- (ii) the **lowest** temperature.

(2)

- (b) Work out the difference in the temperature between

- (i) 4 am and 8 am,

-10 and -4

.....6..... $^{\circ}\text{C}$

- (ii) 3 pm and 7 pm.

6 and -2

.....8..... $^{\circ}\text{C}$

(2)

At 11 pm that day the temperature had fallen by 5°C from its value at 7 pm.

- (c) Work out the temperature at 11 pm.

-2 - 5

.....-7..... $^{\circ}\text{C}$

(1)

(Total 5 marks)

4. The table shows the temperature on the surface of each of five planets.

Planet	Temperature
Venus	480 °C
Mars	− 60 °C
Jupiter	− 150 °C
Saturn	− 180 °C
Uranus	− 210 °C

- (a) Work out the difference in temperature between Mars and Jupiter.

.....90.....°C

(1)

- (b) Work out the difference in temperature between Venus and Mars.

.....540.....°C

(1)

- (c) Which planet has a temperature 30 °C higher than the temperature on Saturn?

.....Jup. 121.....

(1)

The temperature on Pluto is 20 °C lower than the temperature on Uranus.

- (d) Work out the temperature on Pluto.

.....− 230.....°C

(1)

(Total 4 marks)

5. The table shows temperatures at midnight and midday on one day in five cities.

City	Midnight temperature	Midday temperature
Belfast	-3°C	4°C
Cambridge	-1°C	4°C
Edinburgh	-7°C	-1°C
Leeds	-6°C	3°C
London	-2°C	6°C

- (a) Which city had the lowest midnight temperature?

Edinburgh

(1)

- (b) How many degrees higher was the midnight temperature in Cambridge than the midnight temperature in Leeds?

5 $^{\circ}\text{C}$

(1)

- (c) Which city had the greatest rise in temperature from midnight to midday?

Leeds

(1)

(Total 3 marks)

6. The table shows the temperatures in four cities at noon one day.

Oslo	-13°C
New York	-5°C
Cape Town	9°C
London	2°C

- (a) Write down the **highest** temperature.

.....9..... $^{\circ}\text{C}$

(1)

- (b) Work out the difference in temperature between Oslo and New York.

.....8..... $^{\circ}\text{C}$

(1)

At 8 pm the temperature in London was 3°C lower than the temperature at noon.

- (c) Work out the temperature in London at 8 pm.

.....-1..... $^{\circ}\text{C}$

(1)

(Total 3 marks)

7. The table shows the midday temperatures in 4 different cities on Monday.

City	Midday temperature ($^{\circ}\text{C}$)
Belfast	5
Cardiff	-1
Glasgow	-6
London	-4

- (a) Which city had the lowest temperature?

.....Glasgow.....

(1)

- (b) Work out the difference between the temperature in Cardiff and the temperature in Belfast.

.....6..... $^{\circ}\text{C}$

(1)

By Tuesday, the midday temperature in London had risen by 7°C .

(c) Work out the midday temperature in London on Tuesday.

.....3..... $^{\circ}\text{C}$

(1)

(Total 3 marks)

8. The table shows the temperature in each of 6 cities on 1st January 2003.

City	Temperature
Cairo	15°C
Copenhagen	-1°C
Helsinki	-9°C
Manchester	3°C
Moscow	-14°C
Sydney	20°C

(a) Write down the name of the city which had the lowest temperature.

.....Moscow.....

(1)

(b) Work out the difference in temperature between Copenhagen and Cairo.

.....16..... $^{\circ}\text{C}$

(1)

On 2nd January 2003, the temperature in Moscow had increased by 4°C .

(c) Work out the new temperature in Moscow.

.....-10..... $^{\circ}\text{C}$

(1)

(Total 3 marks)