

Name:

Teacher
Assessment



Topic 1 - F
Number Concepts

Section A

Written methods

Grade G → C

1. Fill in the missing numbers in these calculations.

(a) $12 + \square = 30$

(b) $14 - \square = 8$

(c) $16 \times \square = 48$

(Total 3 marks)

2. Fill in the boxes.

(a) $8 \times 4 = \square$

(1)

(b) $32 + 59 = \square$

(1)

(c) $37 - 18 = \square$

(1)

(d) $70 \div \square = 10$

(1)

(e) $48 \square 12 = 4$

(1)

(Total 5 marks)

3. Fill in the missing numbers in these calculations.

(a) $52 + \square = 98$

(1)

(b) $\square \times 9 = 108$

(1)

(c) $\square - 60 = 27$

(1)

(d) $450 \div \square = 225$

(1)

(Total 4 marks)

4. Work out

(a) $500 - 346$

.....
.....

Answer

(1)

(b) $89 + 565$

.....
.....

Answer

(1)

(Total 2 marks)

5. Fill in the missing digits to make the calculations correct.

(a)

$$\begin{array}{r}
 \square \ 7 \ 6 \\
 + \ 2 \ \square \ 5 \\
 \hline
 9 \ 2 \ \square
 \end{array}$$

(b)

$$\begin{array}{r}
 \square \ 8 \ 4 \\
 - \ 1 \ \square \ 2 \\
 \hline
 4 \ 5 \ \square
 \end{array}$$

(Total 4 marks)

6. Work out

(a) $500 - 148$

.....
.....

Answer

(2)

(b) 243×52

.....
.....
.....
.....

Answer

(3)

(c) $903 \div 43$

.....
.....
.....
.....
.....

Answer

(3)

(Total 8 marks)

7. Work out

(a) $700 - 257$

.....
.....

Answer

(2)

(b) 372×53

.....
.....
.....
.....
.....

Answer

(3)

(c) $972 \div 27$

.....
.....
.....
.....
.....
.....

Answer

(3)

(Total 8 marks)

8. Work out

(a) $426 + 37 + 384$

.....
.....
.....

Answer (2)

(b) $800 - 472$

.....
.....

Answer (2)

(c) 132×8

.....
.....
.....

Answer (2)

(d) 0.2×0.4

.....

Answer (1)

(Total 7 marks)

9. Work out

(a) $23.4 + 7.3$

.....
.....

Answer (1)

(b) $9.6 - 3.9$

.....
.....

Answer (1)

(c) 2.4×6

.....
.....
.....

Answer

(1)

(d) $125 \div 0.5$

.....

Answer

(1)

(e) 2.76×3.4

.....
.....
.....
.....
.....

Answer

(3)

(Total 7 marks)

Success:

Target:



Section B

Negatives

Grade G → E

1. Work out

(a) $-3 + 5$

Answer (1)

(b) $2 - (-7)$

Answer (1)

(c) $-5 + (-3)$

Answer (1)

(d) $6 \times (-4)$

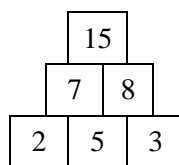
Answer (1)

(e) $-10 \div (-5)$

Answer (1)

(Total 5 marks)

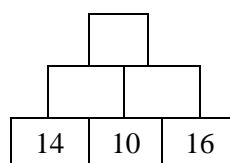
2. Here is a pyramid pattern.



Each number is found by adding the two numbers directly below.
For example, $7 = 2 + 5$

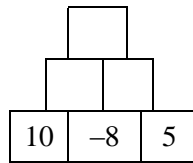
(a) Complete the following pyramid patterns.

(i)



(2)

(ii)



(3)
(Total 5marks)

3. The map shows the temperatures at sunset in five cities in the British Isles.

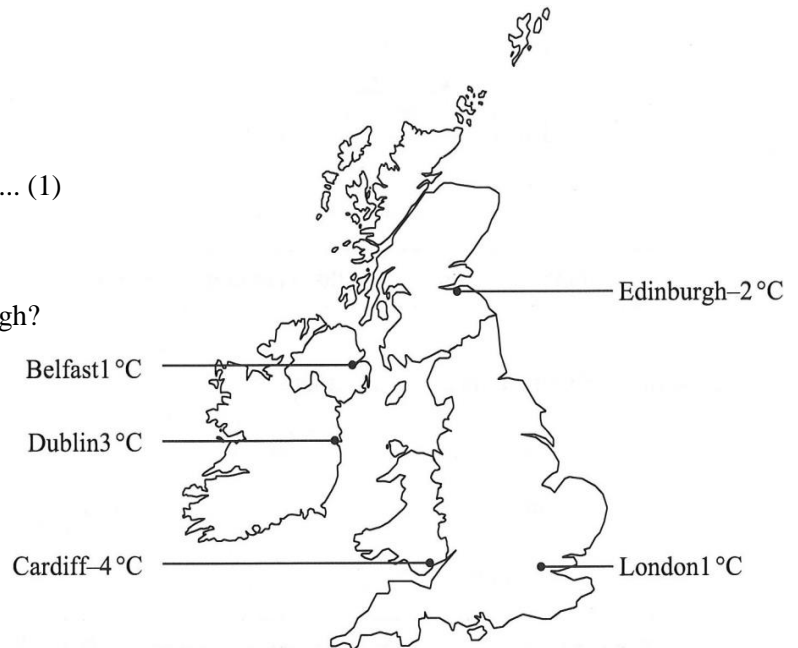
(a) In which city is the temperature the lowest?

Answer (1)

(b) How much higher is the temperature in Dublin than the temperature in Edinburgh?

.....
.....

Answer°C (1)



(c) The temperature in Cardiff at midday is 10°C **higher** than it is at sunset. What is the temperature at midday in Cardiff?

.....

Answer°C

(1)

(d) The temperature in Edinburgh at midnight is 3°C **lower** than it is at sunset. What is the temperature at midnight in Edinburgh?

.....

Answer°C

(1)

(Total 4 marks)

4. (a) The temperatures in a number of cities in Europe on one day in December were

11°C 5 °C -2°C -7°C 8 °C 14°C -3°C

(i) Write down the coldest of these temperatures.

Answer °C

(1)

(ii) Write down the warmest of these temperatures.

Answer °C

(1)

- (b) The temperature recorded in Helsinki, in Finland, was -3°C at 2pm.

At midnight this temperature had fallen by 8°C .

What was the temperature at midnight?

.....
.....

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

(2)

(Total 4 marks)

5. The midday temperatures at different ski resorts are shown.

- (a) What is the difference in temperature between Aspen and Wengen?

.....

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

(1)

Aspen	-1°C
Breckenridge	-12°C
Wengen	9°C
Soldeu	5°C
La Plagne	-3°C

- (b) The temperature at midnight in Soldeu is 7 degrees lower than the temperature at midday. What is the temperature in Soldeu at midnight?

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

(1)

(Total 2 marks)

6. The table shows the midday temperatures of five cities on a Sunday in January.

- (a) Which city was the warmest?

Answer

(1)

- (b) Which city was the coldest?

Answer

(1)

City	Temperature ($^{\circ}\text{C}$)
Copenhagen	-2
Geneva	0
London	3
Moscow	-4
Paris	-1

- (c) How much warmer was Paris than Moscow?

.....

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

(1)

- (d) On Monday, the midday temperature in Copenhagen was 3°C higher than it was on Sunday.

What was the midday temperature in Copenhagen on Monday?

.....

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

(1) (Total 4 marks)

7. The temperature at midnight was recorded at a weather station in Scotland during a week in February. Five of these temperatures are shown in the table.

Day	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Temperature (°C)	2	-4		-1	-4	-8	

- (a) Which of these five temperatures was the warmest?

Answer

(1)

- (b) On Wednesday the temperature at midnight was 3 degrees lower than that recorded on Tuesday.

What was the temperature at midnight on Wednesday?

.....

Answer

(1)

- (c) On Sunday the temperature at midnight was 5 degrees higher than that recorded on Saturday.

What was the temperature at midnight on Sunday?

.....

Answer

(1)

(Total 3 marks)

8. (a) At 7 pm the temperature was 3 °C.
At midnight, the temperature had fallen by 5 °C.

What was the temperature at midnight?

.....

.....

Answer

(1)

- (b) At 2 am the temperature was -4 °C.
By midday the temperature had risen by 10 °C.

What was the temperature at midday?

.....

.....

Answer

(1)

(Total 2 marks)

9. The table shows the highest and lowest temperatures recorded in five cities.

	Birmingham	Edinburgh	London	Manchester	Newcastle
Highest temperature	27°C	25°C	31°C	29°C	26°C
Lowest temperature	-2°C	-7°C	1°C	-2°C	-5°C

(a) Which city recorded the biggest difference between its highest and lowest temperatures?

.....
.....

Answer

(1)

(b) The difference between the highest and lowest temperatures is the same for two cities. Write down the names of these two cities.

.....
.....
.....
.....

Answer.....and.....

(1)

(Total 2 marks)

Success:

Target:



Section C

Order of Operations

Grade F / E

1. Work out $6 \times 15 + 4 \times 15$

.....
.....
.....

Answer

(2)

(Total 2 marks)

2. Work out $12 \times 18 - 10 \times 18$

.....
.....

Answer

(2)

(Total 2 marks)

3. (a) Work out $12 - (3 + 7)$

.....

Answer

(1)

- (b) Put brackets in each of these calculations to make them correct.

(i) $18 - 4 - 2 = 16$

(ii) $3 + 4 \times 5 = 35$

(iii) $20 \div 5 - 3 = 10$

(3)

(Total 4 marks)

4. Insert brackets on the left-hand side of each of the following to make them correct.

(a) $3 + 5 - 2 \div 3 = 2$

(1)

(b) $3 + 5 - 2 \div 3 = 4$

(1)

(Total 2 marks)

Success:

Target:



Section D

Deriving Unknown Facts

Grade C

1. Use the calculation

$$294 \times 4.57 = 1343.58$$

to find the value of

(a) 294×0.00457

.....

Answer

(1)

(b) $134358 \div 29.4$

.....

Answer

(1)

(Total 2 marks)

2. You are given that $372 \times 51 = 18\,972$

Use this information to find the answers to

(a) 3720×51

Answer

(1)

(b) $18\,972 \div 5.1$

Answer

(1)

(c) 372×102

.....

.....

Answer

(1)

(Total 3 marks)

Success:

Target:



Section E

Problem Solving

Grade E → C

1. (a) (i) Arnie orders a burger and fries.
How much does this cost?

.....
.....

Answer £

(1)



- (ii) He pays with a £5 note. How much change does he get?

Answer £

(1)

- (b) A 'Meal Deal' gives a burger, fries and drink for £2.50
How much cheaper is this than buying the items separately?

Answer pence

(2)

(Total 4 marks)

2. Mr Gordon pays for a family holiday.

- (a) Complete his bill.

Description	Cost
2 adults @ £540 each	
3 children @ £250 each	
Hire of car for 10 days @ £20 per day	
Total	£

(3)

- (b) Mr Gordon pays £240 by cheque for some foreign currency.
The cheque below shows how he completes it.

AQA Bank Limited Manchester M15 6EX	95-31-18 123456789
	Date <u>5th June 2006</u>
Pay <u>Travel tours</u>	
Amount <u>Two hundred and forty pounds</u>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> £ 240.00 </div>
	K Gordon

Mr Gordon also pays for the family holiday by cheque.
Complete the cheque below in words **and** figures.

AQA Bank Limited Manchester M15 6EX	95-31-18 123456789 <i>Date</i> <u>5th June 2006</u>
Pay <u>Travel tours</u>	
Amount _____ _____ _____	<div style="border: 1px solid black; display: inline-block; padding: 5px;">£</div> K Gordon

(2)
(Total 5 marks)

3. This table shows the results of five football teams after they have each played ten games.

Team	Games played	Games won	Games drawn	Games lost
Arsenal	10	4	1	5
Chelsea	10	3	5	2
Fulham	10	4	3	3
Tottenham	10	3	4	3
West Ham	10	2	6	2

Three points are awarded for each game won.
One point is awarded for each game drawn.
No points are awarded for each game lost.

Which team has the most points?

You **must** show all your working.

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.....

.....

.....

.....

Answer

(Total 4 marks)

4. A youth club hires a disco for £70.
Tickets for the disco cost 80p each.
They sell 140 tickets.

**Friday night
DISCO
Tickets 80 p**

How much profit does the youth club make?

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.....

.....

.....

Answer £

(Total 3 marks)

5. A school band is going on a concert tour to Paris.
- (a) The concert programme is translated into French at a cost of £1.80
The programme has 45 words.
Calculate the cost per word of the translation.

.....

.....

Answer pence

(2)

- (b) The band is performing the concert at three places.
Posters are printed for the concerts.

	Number of small posters	Number of large posters
1st concert	100	20
2nd concert	200	50
3rd concert	0	10

Small posters cost 8p each. Large posters cost 12p each.

Calculate the total cost of printing the posters.

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.....

Answer £

(3)

(Total 5 marks)

6. 350 people go on a coach holiday.
Each coach will seat 53 people.

(a) How many coaches are needed?

.....
.....

Answer

(1)

(b) How many seats will be empty?

.....
.....
.....

Answer

(2)

(Total 3 marks)

7.

	ELECTRICITY	BILL
<i>Time</i>	<i>Cost per unit</i>	<i>Units used</i>
Day	10p	600
Night	4p	200

Anne uses this information to work out her electricity bill.
Work out the total amount of her bill.
You **must** show all your working.

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.....
.....

Answer £

(Total 4 marks)

8. A supermarket sells boxes of the same brand of teabags in three different sizes.



Work out the cost of 20 teabags for each size.

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.....

.....

.....

Answer Small p Medium p Large p
(Total 4 marks)

9. Here is a method for multiplying a whole number by 101.

Step 1: put two zeros onto the right hand side of the number.
Step 2: add on the original number.

Use an example to show why this method works.

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.....

.....

(Total 2 marks)

10. The ticket prices for a river cruise are

Adult	£7
Child	£5
Family	£20

A family ticket can be used for up to 2 adults and up to 3 children.

(a) How much does a family of 2 adults and 3 children save by buying a family ticket?

.....
.....

Answer £

(2)

(b) A family of 1 adult and 4 children go on the river cruise. Work out the cheapest price they could pay.

.....
.....
.....

Answer £

(2)

(Total 4 marks)

11. (a) A box of pencils costs £2.50
Mr Hebson orders 48 boxes for the Mathematics Department.
Find the total cost.

.....
.....
.....
.....

Answer £

(3)

(b) Pens are sold in boxes of 12.
Mr Hebson requires 250 pens.
How many boxes does he need to order?

.....
.....
.....

Answer boxes

(3)

(Total 6 marks)

12. Mike took 400 books to sell at a Saturday market.
By 3 pm, he had sold 310 books at 80 pence each.

Mike then reduced the selling price of the remaining books to 50 pence each.
He was left with 24 unsold books which he gave away.

Find the total amount Mike received from selling the books.

.....
.....
.....
.....

Answer £

(Total 4 marks)

13. Matthew is investigating the costs of using a mobile phone.

He finds that there are two methods of paying for his phone calls.

<p style="text-align: center;">Contract</p> <p>£14 a month fixed charge</p> <p>30 minutes of free calls then 10p per minute</p>
--

<p style="text-align: center;">Pay as you go</p> <p>No fixed charge</p> <p>No free minutes 40p per minute</p>
--

Matthew expects to spend 150 minutes using a mobile phone each month.

Which method is cheaper, 'Contract' or 'Pay as you go'?
You **must** show your working.

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.....
.....
.....
.....

Answer

(Total 4 marks)

Success:

Target:
