

1.

Mr Jones looks at the prices of 5 mansions.

He wants to look at mansions costing between £990,000 and £1,110,000.

Mansion For Sale		
	Name	Price
A	Avery House	£989,990
B	Beano Hall	£1,050,000
C	Chive Castle	£1,200,900
D	Denby House	£1,105,000
E	Eve Court	£991,500

Write the letters of the mansions that he looks at.

2 marks

2.

Write these temperatures in order from hottest to coldest.

92°C \_\_\_\_\_ hottest

37°C \_\_\_\_\_

-12°C \_\_\_\_\_

73°C \_\_\_\_\_

12°C \_\_\_\_\_

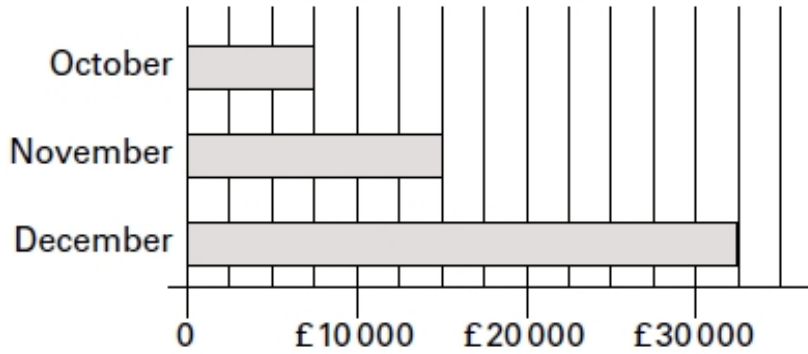
-2°C \_\_\_\_\_ coldest

1 mark

3.



This chart shows the amount of money spent in a toy shop in three months.



How much **more** money was spent in the shop in **December** than in **November**?

£

1 mark

Stepan says,

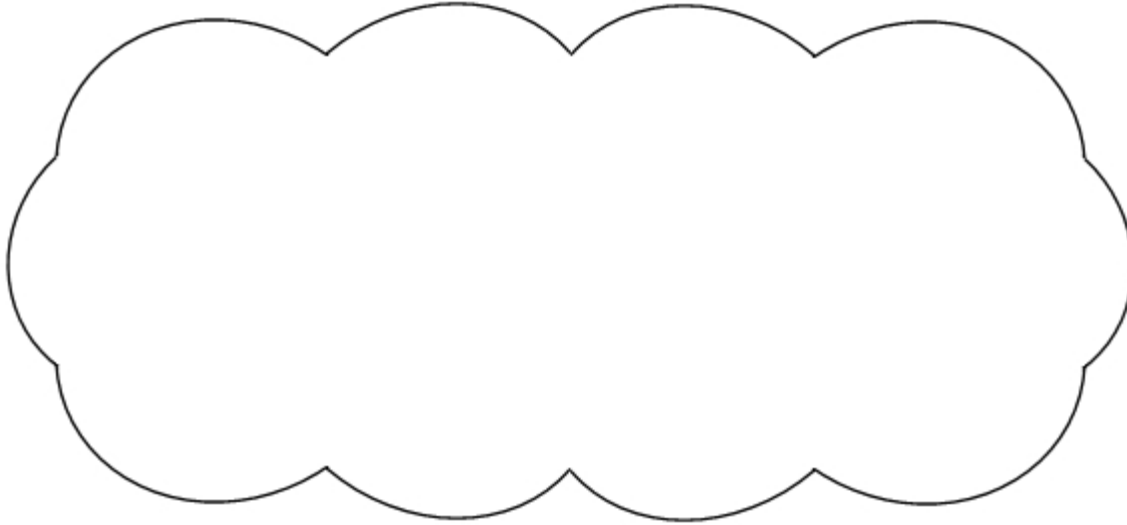
*'In November there was a 100% increase on the money spent in October'*

Is he correct?

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

Yes / No

Explain how you can tell from the chart.



1 mark

4.

Write these numbers in order.

One has been done for you.

3.03

3.23

3.3

3

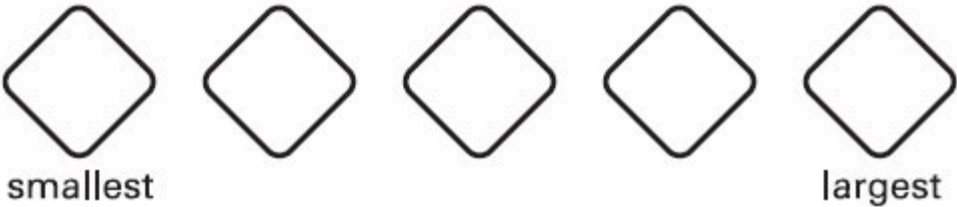
3.2



1 mark

5.

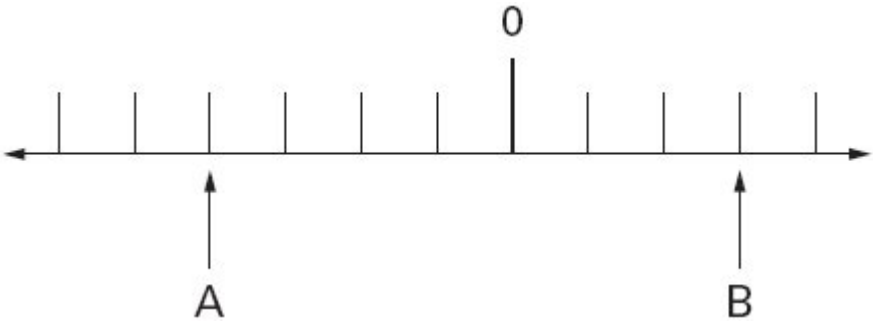
Write these numbers in order.



1 mark

6.

A and B are two numbers on the number line below.



The **difference** between **A** and **B** is 140

Write the values of **A** and **B**.

Show your method

$A =$	$B =$
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2 marks

7.

Write these prices in order from smallest to largest.

99p      £10.50

£0.75      £9      £2.05

smallest      largest

1 mark

8.

Write these numbers in order of size, starting with the smallest.

3.01

13.0

0.31

1.30

3.1

smallest

1 mark

9.

Here are five digit cards.

Use each card **once** to complete the statements below.

$$\boxed{\phantom{0}} \boxed{8} > \boxed{5} \boxed{\phantom{0}}$$

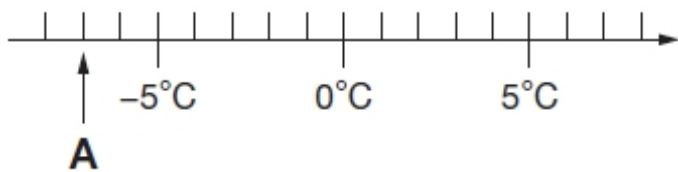
$$\boxed{\phantom{0}} \boxed{0} < \boxed{2} \boxed{\phantom{0}}$$

$$\boxed{\phantom{0}} > \boxed{7}$$

2 marks

10.

Here is part of a temperature scale.



What is the temperature shown at **A**?

1 mark

What temperature is 20 degrees **higher** than **A**?

1 mark

11.

Complete these calculations.

$$15 \times 100 = \boxed{\phantom{000}}$$

$$\boxed{\phantom{000}} \times 10 = 1500$$

$$\boxed{\phantom{000}} \div 100 = 150$$

$$150 \div 10 = \boxed{\phantom{000}}$$

2 marks

12.

Here are three digit cards.

5

6

7

Use each card **once** to make these statements correct.

$$\begin{array}{|c|c|} \hline 4 & 6 \\ \hline \end{array} < \begin{array}{|c|c|} \hline & 2 \\ \hline \end{array}$$

$$\begin{array}{|c|c|} \hline 5 & 6 \\ \hline \end{array} > \begin{array}{|c|c|} \hline & 0 \\ \hline \end{array}$$

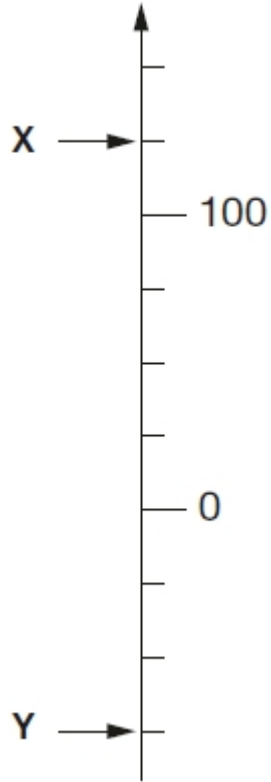
$$\begin{array}{|c|c|} \hline 7 & 6 \\ \hline \end{array} < \begin{array}{|c|c|} \hline & 7 \\ \hline \end{array}$$

1 mark



13.

Here is part of a number line.



What is the value of X?

X =

1 mark

What is the value of Y?

Y =

1 mark

14.

Look at this number.

23,451.96

Write the **digit** that is in the hundreds place.

1 mark

Write the **digit** that is in the hundredths place.

1 mark

15.

Write these numbers in order, starting with the **smallest**.

0.78

0.607

5.6

0.098


4.003

**smallest**

1 mark


16.

**A**




£135,300

**B**




£119,125

**C**




£130,500

**D**



£131,500

**E**



£91,500

Put these houses in order of price starting with the **lowest price**.

One has been done for you.

\_\_\_\_\_ **B** \_\_\_\_\_

lowest

1 mark

17.

Write these numbers in order of size, starting with the **smallest**.

1.9      0.96      1.253      0.328

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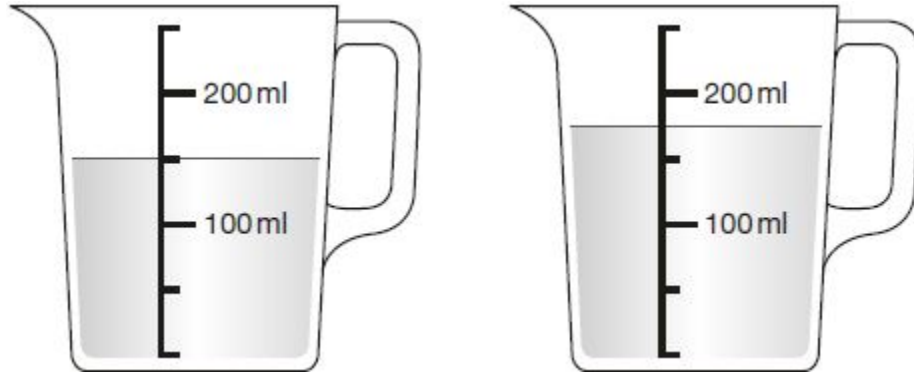
smallest

1 mark

**18.**

Stefan has **600 millilitres** of water in a bottle.

He pours some of the water into two measuring jugs as shown.



How many millilitres of water are left in Stefan's bottle?

Show your method

A large grid for showing the method. The grid is 20 units wide and 10 units high. On the left side, there is a bracketed area containing the text "Show your method". On the right side, there is a small rectangular box labeled "ml" for the final answer.

2 marks

**19.**

Here are four number cards.



Layla uses each card once to make a four-digit number.

She places:

- 4 in the tens column
- 2 so that it has a higher value than any of the other digits
- the remaining two digits so that 7 has the higher value.

Write a digit in each box to show Layla's number.

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1 mark

20.

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

303,604    302,604    301,604    300,604    ...

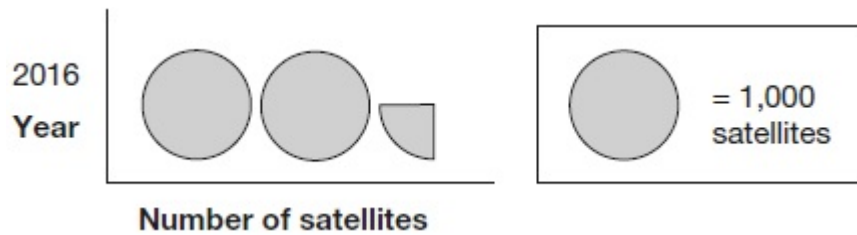
What is the next number in the sequence?

--

1 mark

21.

This pictogram shows the number of satellites above the Earth in 2016.



How many satellites were above the Earth in 2016?

--

1 mark

22.

Circle the **greatest** number.

9,206,499                      9,215,300                      9,206,504

   9,215,298                      9,206,909

1 mark

23.

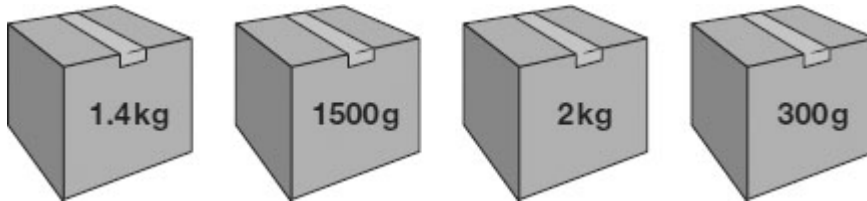
Write the missing number to make this addition correct.

$$400,000 + \boxed{\phantom{000000}} + 70 = 430,070$$

1 mark

24.

William has four parcels.



Write the masses in order, starting with the **heaviest**.

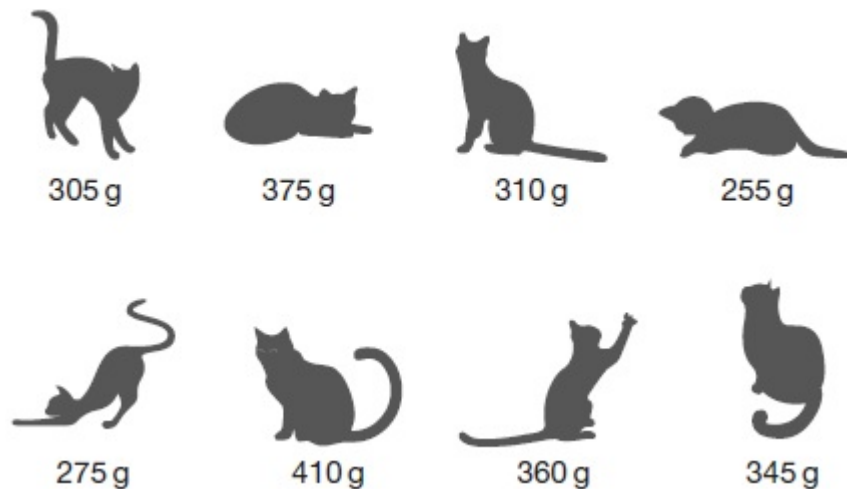
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**heaviest**

1 mark

25.

This picture shows the masses of eight kittens.



What is the **difference** in mass between the heaviest kitten and the lightest kitten?

g
---

1 mark

The masses of the kittens are to be put in four groups.

Write the missing numbers in the table.

One has been done for you.

Mass in g	Number of kittens
250-299	
300-349	
350-399	
400-449	1

1 mark

26.

7,546

Round this number:

to the nearest 1,000

to the nearest 100

to the nearest 10

2 marks

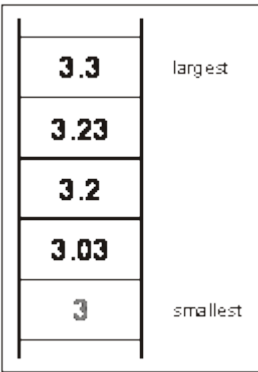
## Mark schemes

- 1.** B, D, E 2
- or**
- Any two correct with none wrong  
**OR**  
All three correct and one wrong
- Letters can be written in any order*
- 1 **[2]**
- 2.** 92°C  
73°C  
37°C  
12°C  
-2°C  
-12°C
- All correct, in this order for 1 mark.*
- 1 **[1]**
- 3.** (a) £17 500 1
- Accept 17500 with or without commas or spaces.*
- (b) An explanation which recognises that November sales were double October, eg
- 'October was 7500 and November was 7500 more which is 100%';
  - 'November is twice October, which is 200%'.
- No mark is awarded for circling 'Yes' alone.*  
**Do not** accept vague or arbitrary answers, eg
- 'November is more than October';
  - 'Because November is £15000'.
- If 'No' is circled but a correct unambiguous explanation is given then award the mark.*
- 1 **[2]**



4.

All four numbers correctly placed as shown:



All four numbers must be placed correctly for the award of the mark.

Transcription errors are acceptable only if they do not result in a wrongly ordered list.

[1]

5.

Numbers written in order as shown:



**Do not** accept reverse order.

[1]

6.

Award **TWO** marks for the correct answer as shown:

A =       B =

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

$140 \div 7 = 20$

Accept 'minus 80'

**Do not** accept '80-'

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

Accept for **ONE** mark:

A = -80 **AND** B = wrong answer **OR**

A = -80 **AND** B = blank **OR**

A = 80 **AND** B = 60 **OR**

A = 80 **AND** B = -60 **OR**

A = 60 **AND** B = -80

Up to 2 (U1)

[2]

7.

Amounts written in correct order as shown:

£0.75   99p   £2.05   £9   £10.50

*Accept use of equivalent units, eg  
75p.*

*Accept answers with missing or incorrect units.*

[1]

8.

Numbers written in correct order as shown:

0.31   1.30   3.01   3.1   13.0

[1]

9.

Award **TWO** marks for cards completed as shown:

6 8 > 5 3

1 0 < 2 4

9 > 7

OR

6 8 > 5 4

1 0 < 2 3

9 > 7

If the answer is incorrect, award **ONE** mark for any two inequalities completed correctly **AND** no digit repeated within the two correct inequalities.

*Do not accept any digit used more than once.*

Up to 2 (U1)

[2]

**10.**(a)  $-7^{\circ}\text{C}$ *Do not accept 7-*

1

(b)  $13^{\circ}\text{C}$ *If (a) is negative allow follow through in part (b) for **ONE** mark.*

1

**[2]****11.**Award **TWO** marks for all four values correct as shown:

$15 \times 100 = \boxed{1500}$

$\boxed{150} \times 10 = 1500$

$\boxed{15000} \div 100 = 150$

$150 \div 10 = \boxed{15}$

If the answer is incorrect, award **ONE** mark for three values correct.

Up to 2

**[2]****12.**

All three digits correct, as shown:

$\boxed{4} \boxed{6} < \boxed{6} \boxed{2}$

$\boxed{5} \boxed{6} > \boxed{5} \boxed{0}$

$\boxed{7} \boxed{6} < \boxed{7} \boxed{7}$

**[1]****13.**(a)  $X = 125$ 

1

(b)  $Y = -75$ *Do not accept 75-*

1

**[2]**

14.

(a) 4

*Do not accept four OR 400*

1

(b) 6

*Do not accept six OR  $\frac{6}{100}$*

1

**Commentary:** This question assesses place value in whole numbers up to 1,000,000 (5N3a) and in decimals (5F6b).

[2]

15.

Numbers in order, as shown:

0.098   0.607   0.78   4.003   5.6

[1]

16.

Award **ONE** mark for the correct answer as shown:

- E B C D A

*Accept:*

- £91,500 B £130,500 £131,500 £135,300

[1]

17.

Numbers in order as shown:

0.328   0.96   1.253   1.9

[1]

18.

Award **TWO** marks for a correct answer of 275

**OR**

an answer in the range from 270 to 280 inclusive.

If the answer is incorrect, award **ONE** mark for evidence of appropriate method, e.g.

- $150 + 175 = 325$   
 $600 - 325 =$

**OR**

- $600 - 150 - 165$  (*error*) =

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

*Accept a reading in the range 170 to 180 ml inclusive for the second jug.*

*At least one of the measurements must be correct for the award of **ONE** mark.*

Up to 2m

[2]

19.

Digits in correct order, as shown:

2 7 4 3

*All digits must be in the correct order for the award of **ONE** mark.*

[1]

20.

299,604

[1]

21.

2,250

*Do not accept  $2000\frac{1}{4}$  OR  $2\frac{1}{4}$  OR 2.25*

[1]

22.

Correct response circled, as shown:

9,206,499    9,215,300    9,206,504

9,215,298    9,206,909

*Accept alternative unambiguous positive indication of the correct answer.*

[1]

23.

30,000

[1]

24.

Masses in correct order, as shown:

2 kg	1500 g	1.4 kg	300 g
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heaviest

OR

Accept correct conversions, e.g.

2000g 1500g 1400g 300g

OR

2000 1500 1.4 300

*Misreads and transcription errors are **not** allowed.*

*Accept with correct units or without units.*

*Accept masses written in reverse order **AND** the label heaviest changed to follow suit.*

[1]

25.

(a) 155

1

(b) Table completed with three correct numbers, as shown:

Mass in g	Number of kittens
250-299	2
300-349	3
350-399	2
400-449	1

*All three numbers must be correct for the award of the mark.*

***Do not** accept tally marks on their own.*

1

[2]

**26.**

Award **TWO** marks for the correct three numbers, as shown:

to the nearest 1,000

**8,000**

to the nearest 100

**7,500**

to the nearest 10

**7,550**

If the answer is incorrect, award **ONE** mark for **any two** of the numbers rounded correctly.

***Do not** accept 500 or 50 for the second and third entries.*

Up to 2m

**[2]**

## Examiner reports

3.

This question involves the interpretation of a horizontally presented bar chart. Children are also required to explain their reasoning regarding whether or not a given statement is correct, relating this to information on the chart.

Less than half the children attaining level 5 answered the first part correctly, as did under 10% of those at other levels. Correct answers were more often obtained by boys than girls. More than 15% of children obtaining level 3 failed to attempt this part of the question, as did nearly 10% of those obtaining level 4.

Obtaining the answer required children to read two bars on a chart graduated in £2,500 sections, and then find the difference between these values. The answers £15,000 and £20,000 were given by about 20% of children at level 3 and level 4, and by nearly 10% of those at level 5.

The second part of the question was answered correctly by nearly two-thirds of children awarded level 5 and by nearly a quarter of those awarded level 4. Of those children at level 3 about 5% were awarded the mark, with more than one-third omitting this part of the question. This part of the question was also omitted by nearly 20% of children at level 4. As in the first part of the question, boys were more successful than girls.

Of children at level 5, a quarter incorrectly thought the statement was untrue, as did a quarter of children at level 3 and a third of children at level 4. Other children recognised the truth of the statement, but were unable to provide an adequate or correct explanation. This was the case with nearly 10% of children at level 5, 20% of children at level 4, and 30% of children at level 3.

6.

**Target Level: 5**

**Curriculum Coverage (POS ref: Ma2/2a, 4b)**

This question assesses pupils' ability to interpret the scale on a number line to find the values of two given points, which have a difference of 140. Pupils are asked to record their working.

### **Performance**

- Almost three-quarters of pupils working at level 5 correctly recorded the values of both numbers and were awarded two marks. Nearly one-quarter of pupils working at level 4 also gained both marks.
- Ten per cent of pupils working at level 5 were awarded one mark. Many of these pupils were awarded the mark for correctly identifying A as 80 or for giving a pair of numbers such as 80 and 60 as stated in the mark scheme for the award of one mark. Other pupils were awarded one mark for giving evidence of appropriate working such as  $140 \div 7 = 20$ .



## Common errors and misconceptions

- Of those pupils working at level 5 who were awarded one mark, half gained this mark for an answer of  $A = 80$  and  $B = 60$ . These pupils probably interpreted the scale correctly, but forgot to include the negative sign for A. Almost 30% of pupils working at level 5 who were awarded one mark gained this mark for showing evidence of appropriate working such as indicating that each interval on the number line represented 20.
- Over 10% of pupils working at level 4 gave two numbers with a difference of 140, other than those which could be awarded any marks, suggesting that they used the given information and found two numbers with a difference of 140 without any reference to the number line. Another possibility is that they interpreted the intervals on the scale correctly, but did not use the zero given on the number line as a reference point.

## Methods

- Of those pupils who were awarded at least one mark, about 80% recorded their working, with or without annotations on the number line.
- Pupils who made annotations on the number line and also recorded working or jottings were more likely to be successful than those who used only one of these methods, with about 80% being awarded at least one mark.
- Pupils who annotated the number line but did not record any other working were slightly more successful than those who recorded working or jottings but made no annotations on the number line.

7.

## Target Level: 3

This question assesses pupils' understanding of decimal notation in the context of money. Pupils are required to order a set of prices from smallest to largest.

## Performance

- Ninety-five per cent of pupils working at level 3 answered correctly, as did almost all pupils working at level 4 and all of those working at level 5.

## Common errors and misconceptions

- Of those pupils working at level 3 who were awarded the mark, almost 10% wrote the amounts in the correct order, but with some or all of the units missing or incorrect. This was also seen among nearly 5% of pupils working at level 4.
- Other errors were varied, with no common trends.