

Decimals

Y6 GD

Name: _____

Class: _____

Date: _____

Time: **42 minutes**

Marks: **41 marks**

Comments:

1 Write in the missing numbers.

$$\begin{array}{r} \square 4 \cdot \square 5 \\ 8 \overline{) 438} \end{array}$$

1 mark

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

8.12 1.8 8.118 8.2 1.28



smallest

1 mark

3 Amy thought of a number.

She added 0.5 to her number and then doubled the result.

Then she subtracted 0.5 and doubled the new result.

Her final answer was 61.

What number did Amy start with?

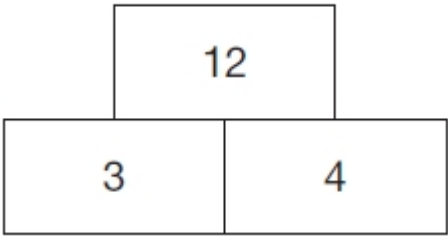
 

Show your working

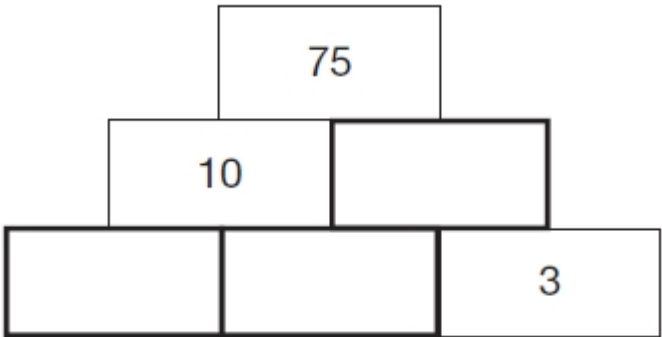
2 marks

6

In this tower, two numbers are **multiplied** to give the number above.



Write the missing numbers in the tower below to make it correct.



2 marks

7

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

$\frac{3}{4}$

0.34

0.7

43%



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smallest

1 mark

8

Here are five number cards.

0.47

10

100

1000

4.07

Use **four** of the cards to complete these calculations.

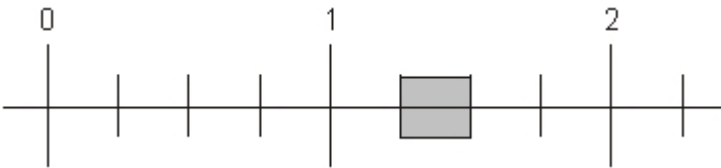
$$47 \div \boxed{} = \boxed{}$$

$$\boxed{} \times \boxed{} = 40.7$$

1 mark

9

Part of this number line is shaded.

Circle **all** the numbers below that belong in the shaded part of the number line.

1.1

1.4

 $1\frac{1}{3}$ $1\frac{1}{5}$

1 mark

10Calculate $52.85 + 143.6$

1 mark

11

Write the answer to each of these calculations rounded to the **nearest whole number**.

One has been done for you.

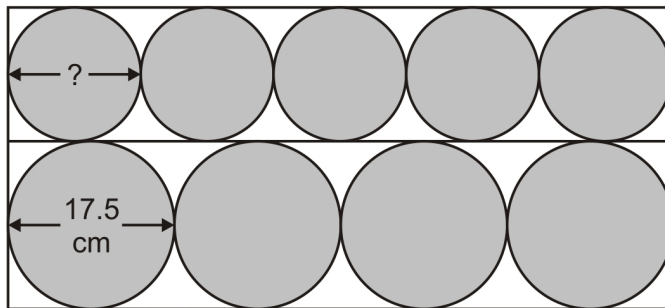


	To the nearest whole number
75.7×59	4466
$7734 \div 60$	
772.4×9.7	
$20.34 \times (7.9 - 5.4)$	

2 marks

12

Four large circles and five small circles fit exactly inside this rectangle.



Not actual size

The **diameter** of a large circle is **17.5** centimetres.

Calculate the **diameter** of a small circle.

Show
your
method

--

cm

2 marks

13 Calculate 31.6×7

جوابك

1 mark

14 Write these numbers in order.

One has been done for you.

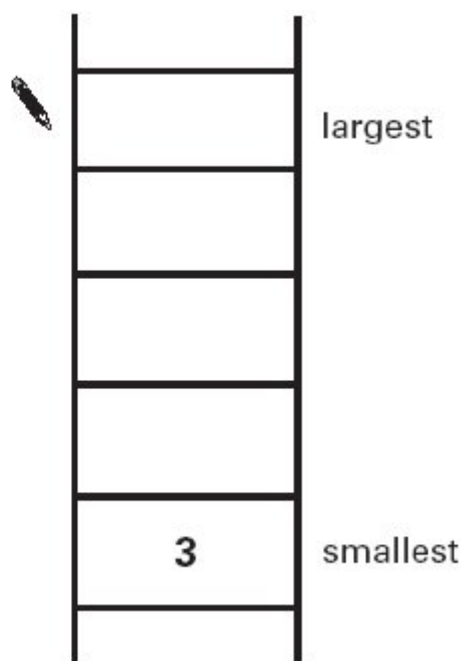
3.03

3.23

3.3

3

3.2



1 mark

15 Circle the number **closest** in value to **0.1**

جوابك

0.01

0.05

0.11

0.2

0.9

1 mark

16 Calculate $8.6 - 3.75$

جوابك

1 mark

17 Put a tick (✓) in the correct box for each calculation.

Use a calculator.

The first one has been done for you.

	less than 1000	equal to 1000	more than 1000
$8.9 \times 9.9 \times 11.9$			✓
$(786 - 387) \div 0.41$			
$95.4 + (91 \times 9.95)$			
$12.5 \times (21.1 + 58.9)$			

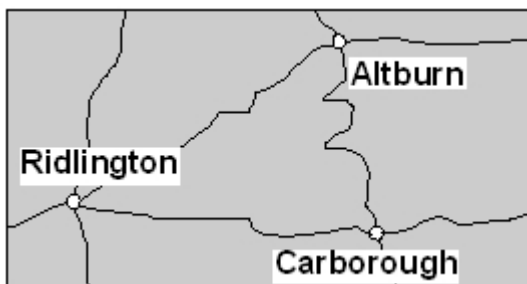
2 marks

18 Circle the **two** numbers which add up to 1.

0.1 0.65 0.99 0.45 0.35

1 mark

19 This map has a scale of **1 centimetre to 6 kilometres**.



The road from Ridlington to Carborough measured **on the map** is **6.6cm** long.

What is the length of the road in **kilometres**?

Show
your
method

km

2 marks

20 $23.8 \div 1000 =$

1 mark

21 $63.6 \times 7 =$

1 mark

22 $16.4 + 7.18 =$

1 mark

23 $0.4 \times 6 =$

1 mark

24 $34.8 - 9.76 =$

1 mark

25 $5.09 + 27.4 =$

1 mark

26 $34.8 \times 1000 =$

1 mark

27 $0.7 \times 5 =$

1 mark

28 $0.8 \times 4 =$

1 mark

29 $343.1 \div 1000 =$

1 mark

30 $87.34 - 7.8 =$

1 mark

31 $2.89 \div 100 =$

1 mark

32

$63.82 + 217.7 =$

1 mark

33

$9.78 \times 1000 =$

1 mark

Mark schemes

$$\begin{array}{r} \boxed{1} \quad \boxed{5} \boxed{4} \cdot \boxed{7} \boxed{5} \\ 8 \overline{) 438} \end{array}$$

[2]

2 Numbers in order, as shown:

1.28 1.8 8.118 8.12 8.2

[1]

3 Award **TWO** marks for the correct answer of 15

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

- $61 \div 2 = 30.5$
 $30.5 + 0.5 = 31$
 $31 \div 2 = 15.5$
 $15.5 - 0.5 = \text{wrong answer}$

OR

- $61 \div 2 = 30.5$
 $30.5 - 0.5 = 30$ (step error)
 $30 \div 2 = 15$
 $15 - 0.5 = 14.5$ (wrong answer)

*Working must be carried through to reach an answer for the award of **ONE** mark.*

Up to 2m

[2]

4 Numbers in order, as shown:

0.5 $\frac{3}{5}$ 0.65 $\frac{2}{3}$

Accept equivalent decimals, percentages or fractions.

[1]

5 Award **TWO** marks for the correct answer of 16

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

$$45 \div 1.25 = 36$$

$$45 \div 2.25 = 20$$

$$36 - 20$$

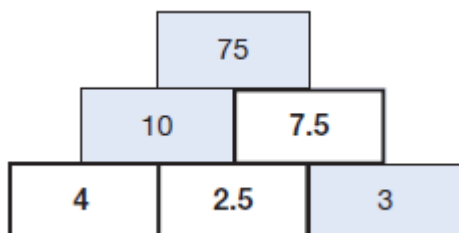
*Answer need not be obtained for the award of **ONE** mark.*

Up to 2

[2]

6 Gives the three correct numbers in their correct positions, ie:

•



Accept unambiguous indication

Accept equivalent fractions, eg:

• $7 \frac{5}{10}$ for 7.5

2

or

Gives two correct numbers in their correct positions

1

[2]

7 Numbers in order as shown:

0.34

43%

0.7

$\frac{3}{4}$

Accept use of equivalent fractions, decimals or percentages, eg 0.34, 0.43, 0.7, 0.75

[1]

8 $47 \div \boxed{100} = \boxed{0.47}$

AND

$\boxed{4.07} \times \boxed{10} = 40.7$

Numbers within calculations may be given in either order.

[1]

9 Two numbers circled as shown:

1.1 $\textcircled{1.4}$ $\textcircled{1\frac{1}{3}}$ $1\frac{1}{5}$

Do not award the mark if additional incorrect numbers are circled.
Accept: alternative unambiguous indications, eg numbers ticked, crossed or underlined.

[1]

10 196.45

[1]

11 Award **TWO** marks for all three numbers in order as shown:

129
AND
7492
AND
51

If the answer is incorrect, award **ONE** mark for two out of three numbers correct.

Do not accept 129.0 **OR** 7492.0 **OR** 51.0 **OR** any other equivalent answers with zeroes after the decimal point.

Up to 2

[2]

12

Award **TWO** marks for the correct answer of 14

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

$$17.5 \times 4 = 70$$

$$70 \div 5$$

Accept for **ONE** mark 140 **OR** 1.4 as evidence of appropriate method.

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

Up to 2 (U1)

[2]

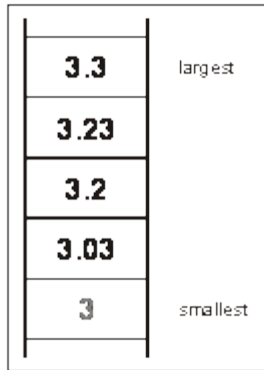
13

221.2

[1]

14

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]

15

0.01 0.05 0.11 0.2 0.9

Accept unambiguous alternatives, eg the number crossed or underlined.

[1]

16

4.85

[1]

17Award **TWO** marks for the table correctly completed as shown:

		✓
✓		
		✓
	✓	

Do not accept any line which has two or more ticks in it.
Accept unambiguous alternatives to ticks, eg 'yes'.

If the table is not correctly completed award **ONE** mark for any two out of three ticks correct.

Up to 2

[2]

18

0.1 (0.65) 0.99 0.45 (0.35)

[1]

19Award **TWO** marks for 39.6 km, even if there are errors in the working.

If the answer is incorrect, award **ONE** mark for evidence of correct partial result 6×6.6 by any appropriate method (not repeated addition only), eg:

- $6 \times 6.6 = 36 + \dots$ (incorrect answer given)
- $6 \times 6.6 = 396$

The writing of an expression such as:

- **6×6.6**

alone, without attempt at calculation, is insufficient for the mark.

Up to 2

[2]

20

0.0238

[1]

21

445.2

[1]

22

23.58

[1]

23

2.4

[1]

24

25.04

[1]

25

32.49

[1]

26	34800	[1]
27	3.5	[1]
28	3.2	[1]
29	0.3431	[1]
30	79.54	[1]
31	0.0289	[1]
32	281.52	[1]
33	9780	[1]