THIRD SPACE LEARNING

Key Stage 2 SATs

Mathematics Practice Test and Mark Scheme

Paper 1: Arithmetic

Pack 1: 2016 (new curriculum)

Third Space Learning

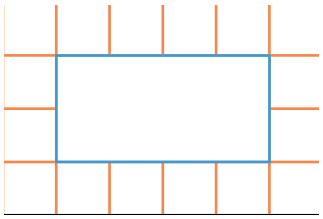
First name	
Last name	
Class	
School	
Score	

Instructions

You **may not** use a calculator to answer any questions in this test.

Questions and answers

- Work as quickly and as carefully as you can.
- Put your answer in the box for each question.

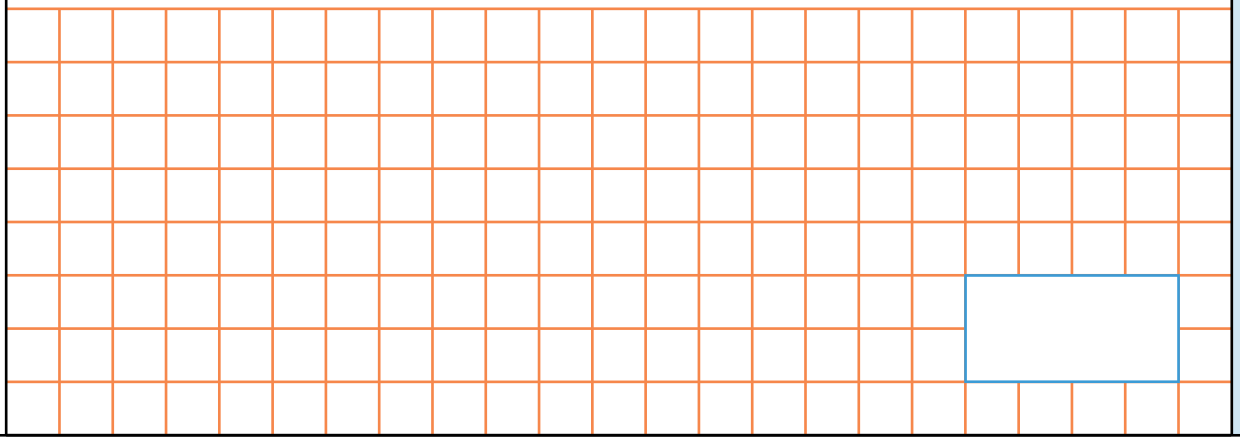


- All answers should be given as a single value.
- For questions expressed as common fractions or mixed numbers, you should give your answers as common fractions or mixed numbers.
- If you cannot do a question, **go on to the next one**. You can come back to it later, if you have time.
- If you finish before the end, **go back and check your work**.

Marks

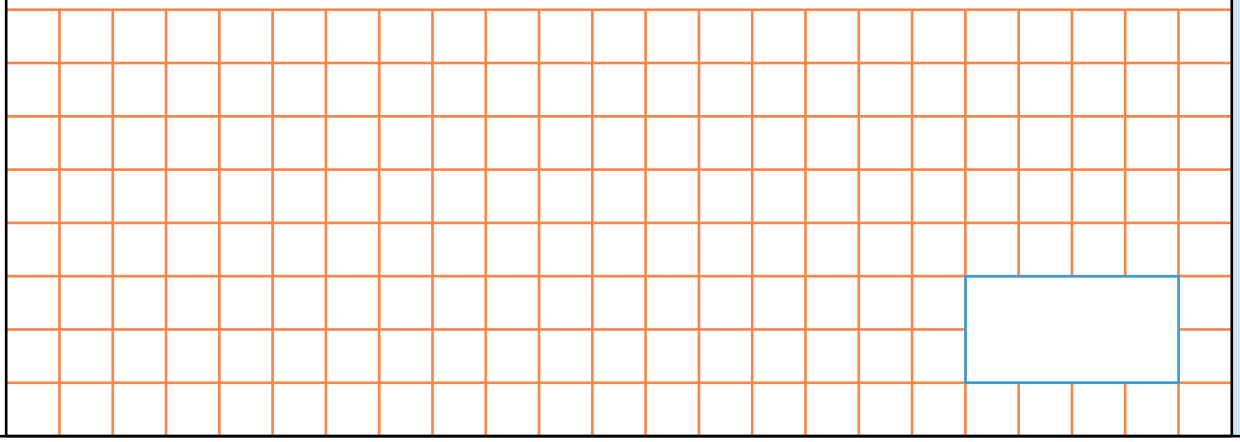
- The number under each box at the side of the page tells you the maximum number of marks for each question.
- In this test, long division and long multiplication questions are worth **TWO** marks each. You will be awarded **TWO** marks for a correct answer. You may get **ONE** mark for showing a formal method.
- All other questions are worth **ONE** mark each.
- If you finish before the end, **go back and check your work**.

1 997 + 10 =



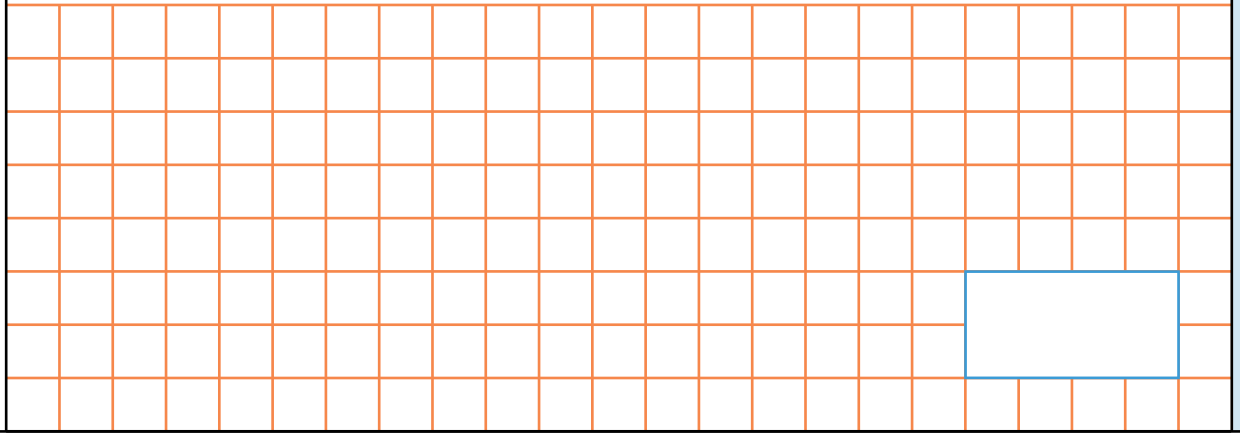
1 mark

2 39 + 621 =



1 mark

3 1,023 - 100 =



1 mark

4 $\square = 607 + 598$

1 mark

5 $396 - 9 =$

1 mark

6 $542 \times \square = 542$

1 mark

7 $86 \div 2 =$

1 mark

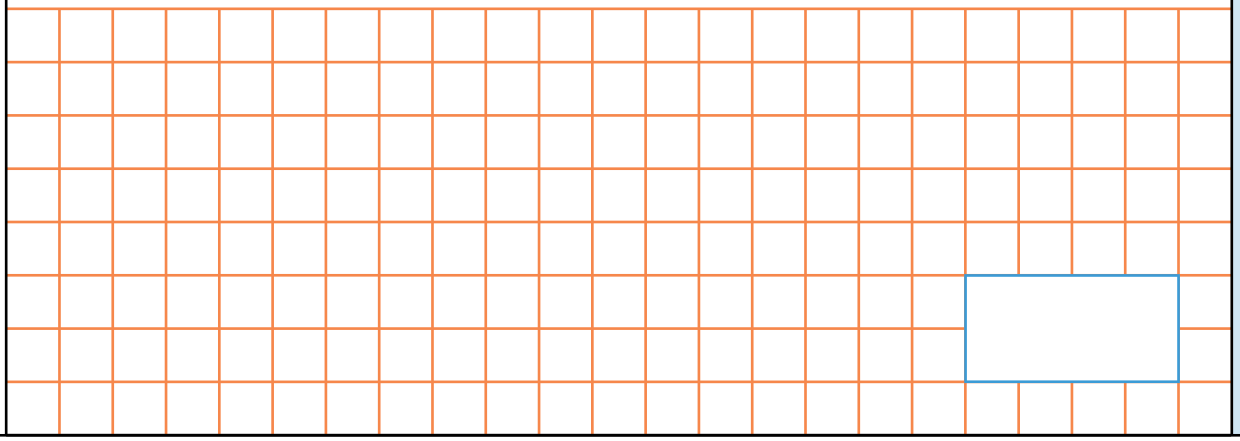
8 $\square = 1000 - 75$

1 mark

9 $79{,}968 + 3{,}403 =$

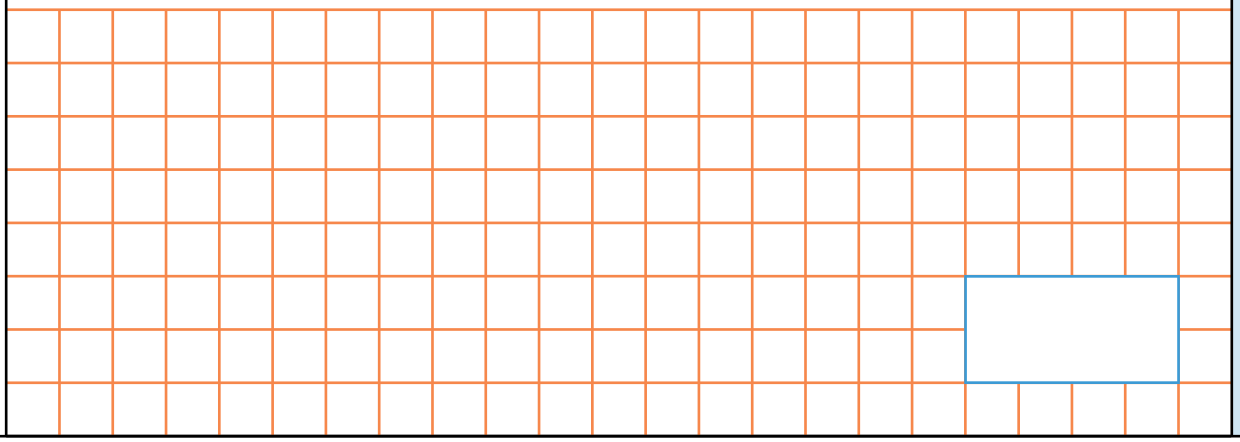
1 mark

10 $3 \times 6 \times 5 =$



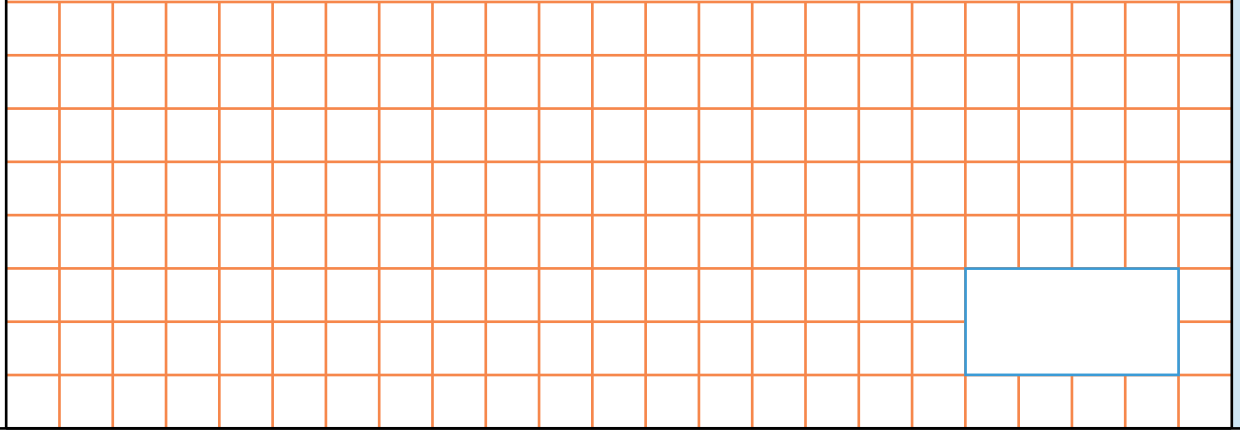
1 mark

11 $768 \times 5 =$



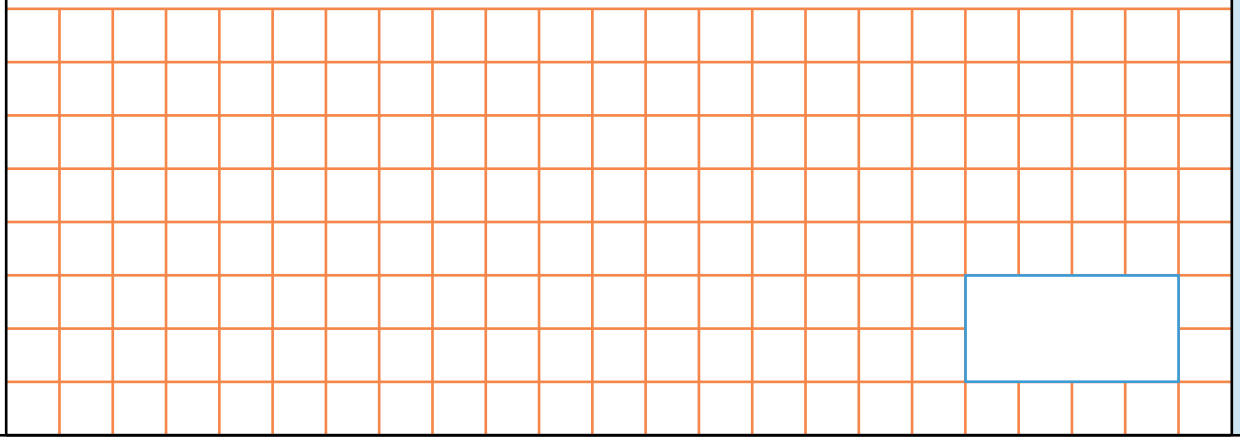
1 mark

12 $90 \times 40 =$



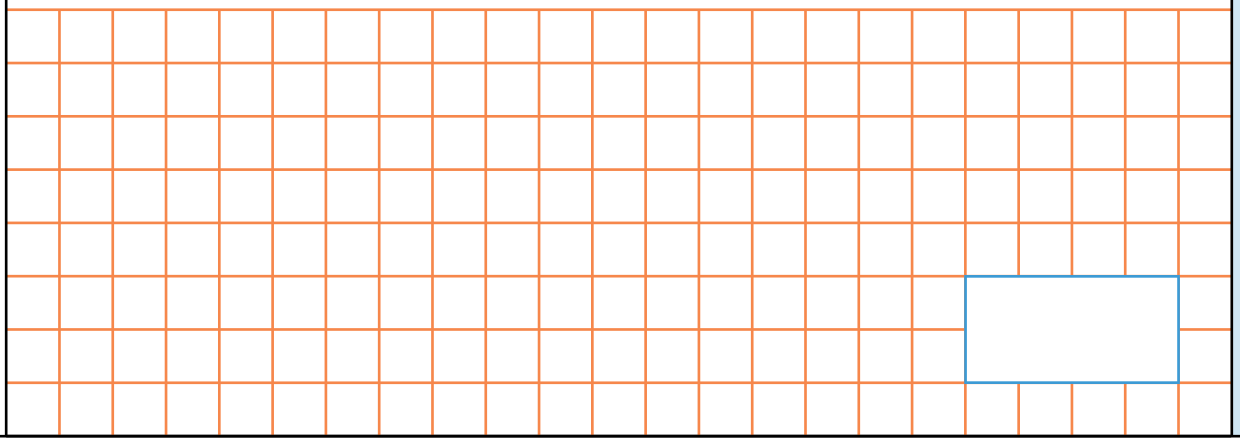
1 mark

13 902 ÷ 100 =



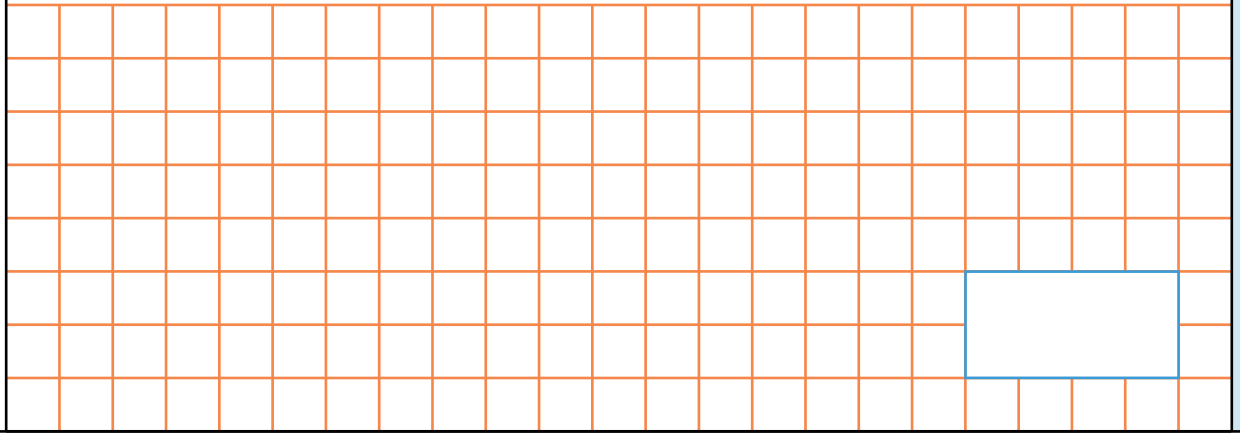
1 mark

14 2.061 + 5.52 =



1 mark

15 267.54 - 93.4 =



1 mark

16 $536 \div 4 =$

1 mark

17 $284{,}381 - 13{,}999 =$

1 mark

18 $5^2 - 14 =$

1 mark

19 $\square = 1.007 \times 10$

1 mark

20 $8 - 1.99 =$

1 mark

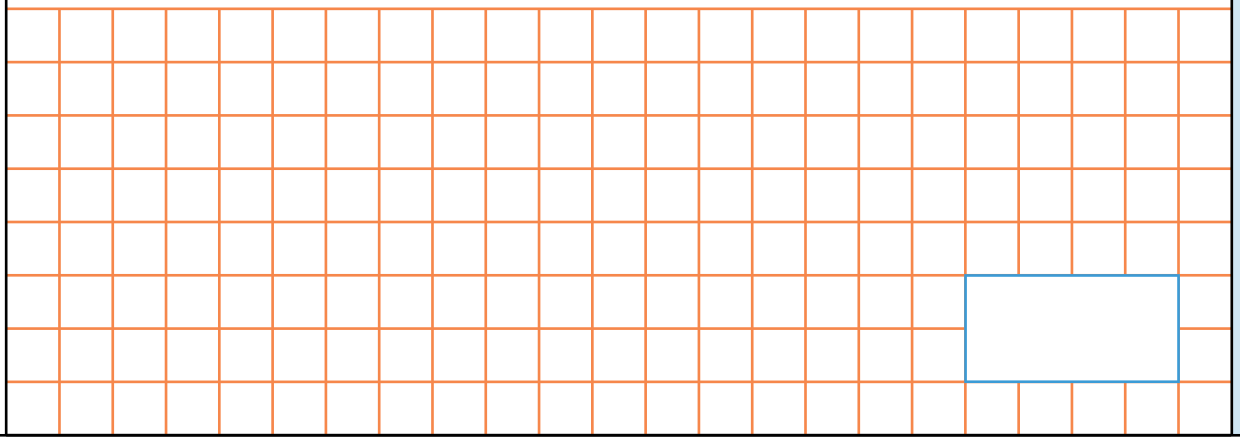
21

$$\begin{array}{r} 62 \\ \times\ 25 \\ \hline \end{array}$$

Show your method

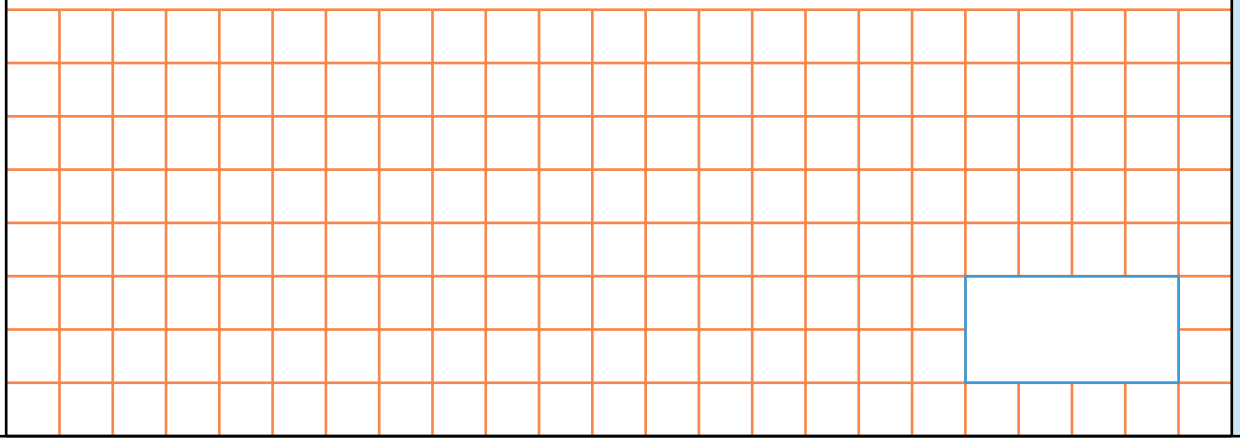
1 mark

22 30% of 2,400 =



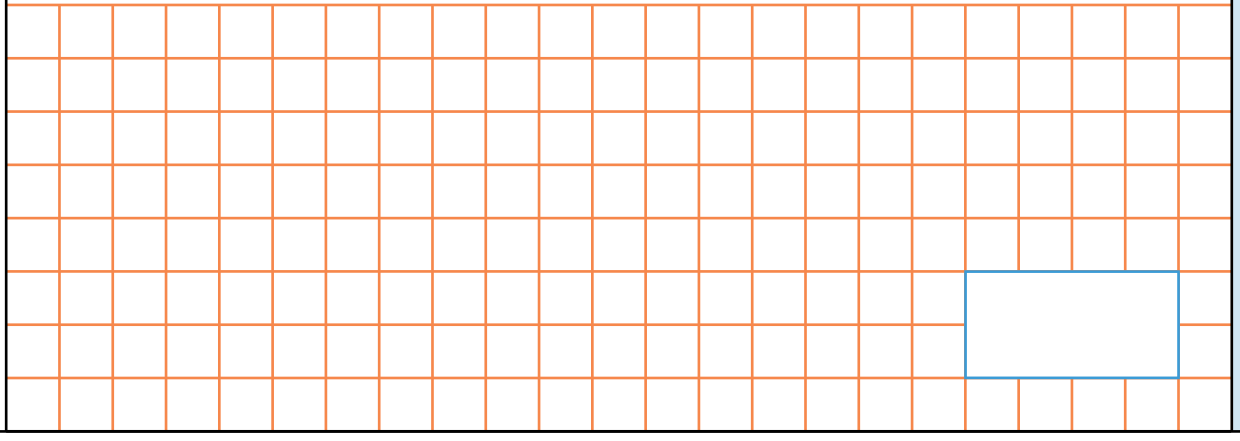
1 mark

23 1,265 ÷ 11 =



1 mark

24 23 x 5.4 =



1 mark

25 $\frac{4}{9} + \frac{7}{9} =$

1 mark

26 $\frac{3}{4} - \frac{1}{8} =$

1 mark

27 5% of 680 =

1 mark

28

Show your method

	7	0	8	5
x			4	3

1 mark

29

Show your method

	2	6	8	8	4

1 mark

30

$\frac{7}{8} + 2\frac{5}{16} =$

1 mark

31 $\frac{6}{11} \div 3 =$

1 mark

32 $\frac{1}{2} \times \frac{3}{4} =$

1 mark

33 $1\frac{1}{5} - \frac{1}{2} =$

1 mark

34

Show your method

4 7) 1 2 6 9

1 mark

35

$\frac{3}{7}$ x 175 =

1 mark

36

$8^2 - 3 \times 2$

1 mark

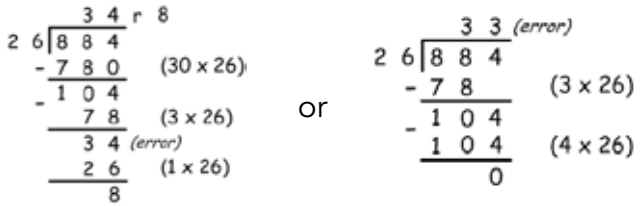
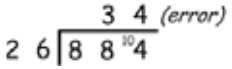
The instructions and principles of this mark scheme closely follow the guidance in the 2016 national curriculum tests. We have deliberately not set a limited time for the test paper as a teacher may want to vary it according to the standard individual children are working at.

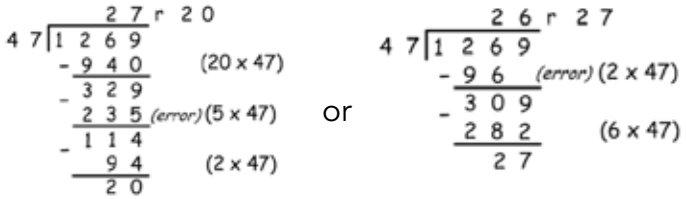
The national curriculum test allows 30 minutes to complete this test.

Q	Requirement	Mark	Additional guidance	Content Domain Ref	Requirement
1	1007	1m		3N2b	Number
2	660	1m		3C2	Calculations
3	923	1m		3N2b	Number
4	1205	1m		3C2	Calculations
5	387	1m		3C1	Calculations
6	1	1m		4C6b	Calculations
7	43	1m		3C7	Calculations
8	925	1m		5C1	Calculations
9	83,371	1m		5C2	Calculations
10	90	1m		4C6b	Calculations
11	3840	1m		4C7	Calculations
12	3600	1m		5C6a	Calculations
13	9.02	1m		5C6b	Calculations
14	7.581	1m		5F8	Fractions
15	174.14	1m		5F8	Fractions
16	134	1m		5C7b	Calculations
17	270,382	1m		5C2	Calculations
18	11	1m		6C9	Calculations
19	10.07	1m		6F9a	Fractions
20	6.01	1m		4F8	Fractions

Q	Requirement	Mark	Additional guidance	Content Domain Ref	Requirement
21	Award **TWO** marks for the correct answer of 1,550 If the answer is incorrect, award **ONE** mark for the formal method of long multiplication with no more than **ONE** arithmetical error, e.g. $\begin{array}{r} 62 \\ \times\ 25 \\ \hline 310 \\ 1240 \\ \hline 1650 \end{array}$ *(error)* or $\begin{array}{r} 62 \\ \times\ 25 \\ \hline 310 \\ 1240 \\ \hline 1650 \end{array}$ *(error)*	Up to 2m	Working must be carried through to reach a final answer for the award of **ONE** mark. Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens: $\begin{array}{r} 62 \\ \times\ 25 \\ \hline 310 \\ 124 \\ \hline 434 \end{array}$ *(place value error)*	5C7a	Calculations
22	720	1m	**Do not** accept 720%	6R2	Ratio
23	115	1m		5C6a	Calculations
24	124.2	1m		6F9b	Fractions

Q	Requirement	Mark	Additional guidance	Content Domain Ref	Requirement
25	1 2/9 **OR** 11/9	1m	Accept equivalent fractions or the exact decimal equivalent, e.g. 1.222... (accept any unambiguous indication of the recurring digits). Do not accept rounded or truncated decimals.	4F4	Fractions
26	$\frac{5}{8}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. 0.625	5F4	Fractions
27	34	1m	Do not accept 34%	6R2	Ratio
28	Award **TWO** marks for the correct answer of 304,655 If the answer is incorrect, award **ONE** mark for the formal method of long multiplication with no more than **ONE** arithmetical error, e.g. 7085 × 43 = 21255 + 283200 = 204455 *(error)* or 7085 × 43 = 21255 + 283200 = 204455 *(error)*	Up to 2m	Working must be carried through to reach a final answer for the award of **ONE** mark. Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens: 7085 × 43 = 21255 + 28340 = 49595 *(place value error)*	6C7a	Calculations

Q	Requirement	Mark	Additional guidance	Content Domain Ref	Requirement
29	Award **TWO** marks for the correct answer of 34 If the answer is incorrect, award **ONE** mark for the formal methods of division with no more than **ONE** arithmetical error, i.e. • long division algorithm, e.g.  or • short division algorithm, e.g.  	Up to 2m	Working must be carried through to reach a final answer for the award of **ONE** mark. Short division methods must be supported by evidence of appropriate carrying figures to indicate the use of a division algorithm, and be a complete method. The carrying figure must be less than the divisor.	6C7b	Calculations
30	3 3/16 **OR** 51/16	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. 3.1875 Do not accept for e.g. 2 19/16	6F4	Fractions

Q	Requirement	Mark	Additional guidance	Content Domain Ref	Requirement
31	$\frac{2}{11}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. 0.1818... (accept any unambiguous indication of the recurring digits).	6F5b	Fractions
32	$\frac{3}{8}$	1m	Accept equivalent fractions or the exact decimal equivalent, e.g. 0.375 Do not accept rounded or truncated decimals.	6F5a	Fractions
33	$\frac{7}{10}$	1m	Accept equivalent fractions or the exact decimal equivalent e.g. 0.7	6F4	Fractions
34	Award **TWO** marks for the correct answer of 27 If the answer is incorrect, award **ONE** mark for the formal methods of division with no more than **ONE** arithmetical error, i.e. • long division algorithm, e.g.  	Up to 2m	Working must be carried through to reach a final answer for the award of **ONE** mark. Short division methods must be supported by evidence of appropriate	6C7b	Calculations

Q	Requirement	Mark	Additional guidance	Content Domain Ref	Requirement
	• short division algorithm, e.g. 2 6 *(error)* 4 7 | 1 2 6 ^{32}9		carrying figures to indicate the use of a division algorithm, and be a complete method. The carrying figure must be less than the divisor.		
35	75	1m		5F5	Fractions
36	58	1m		6C9	Calculations

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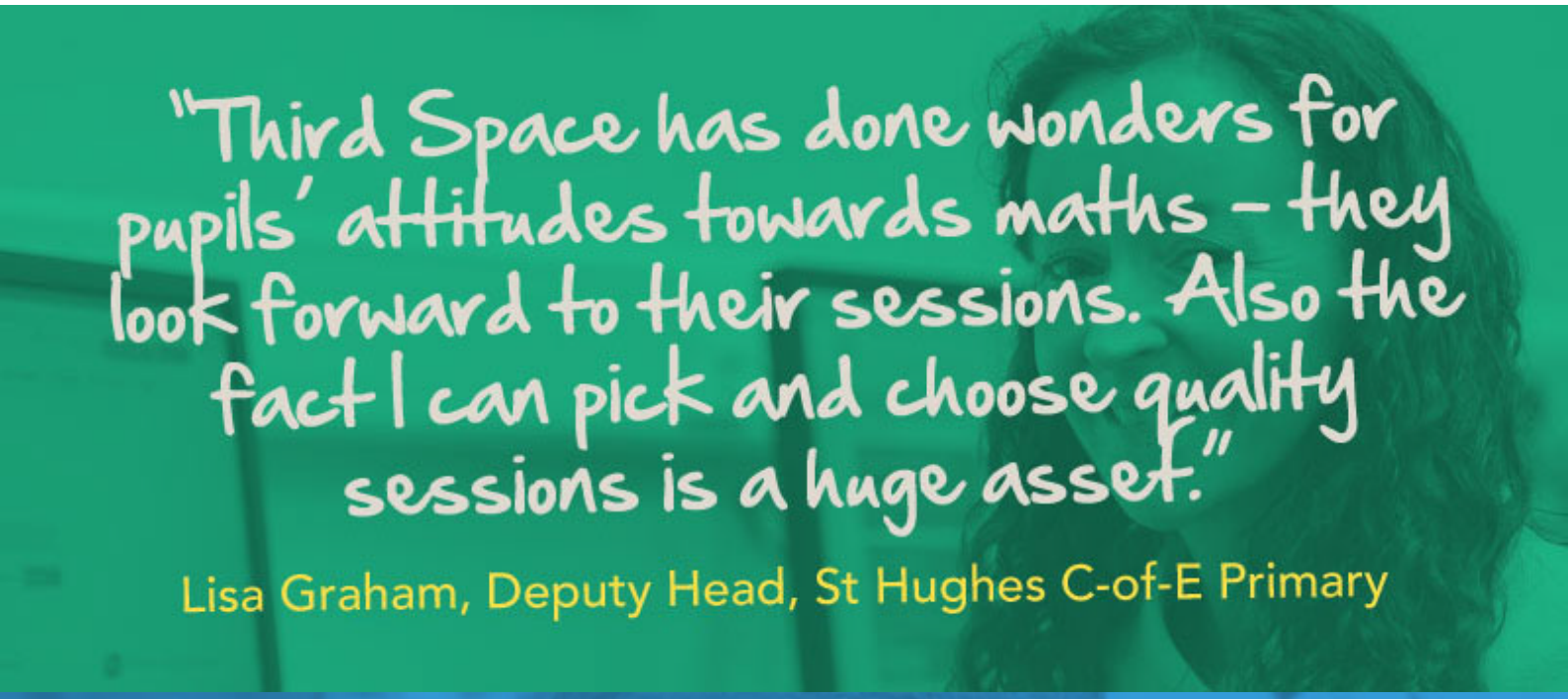

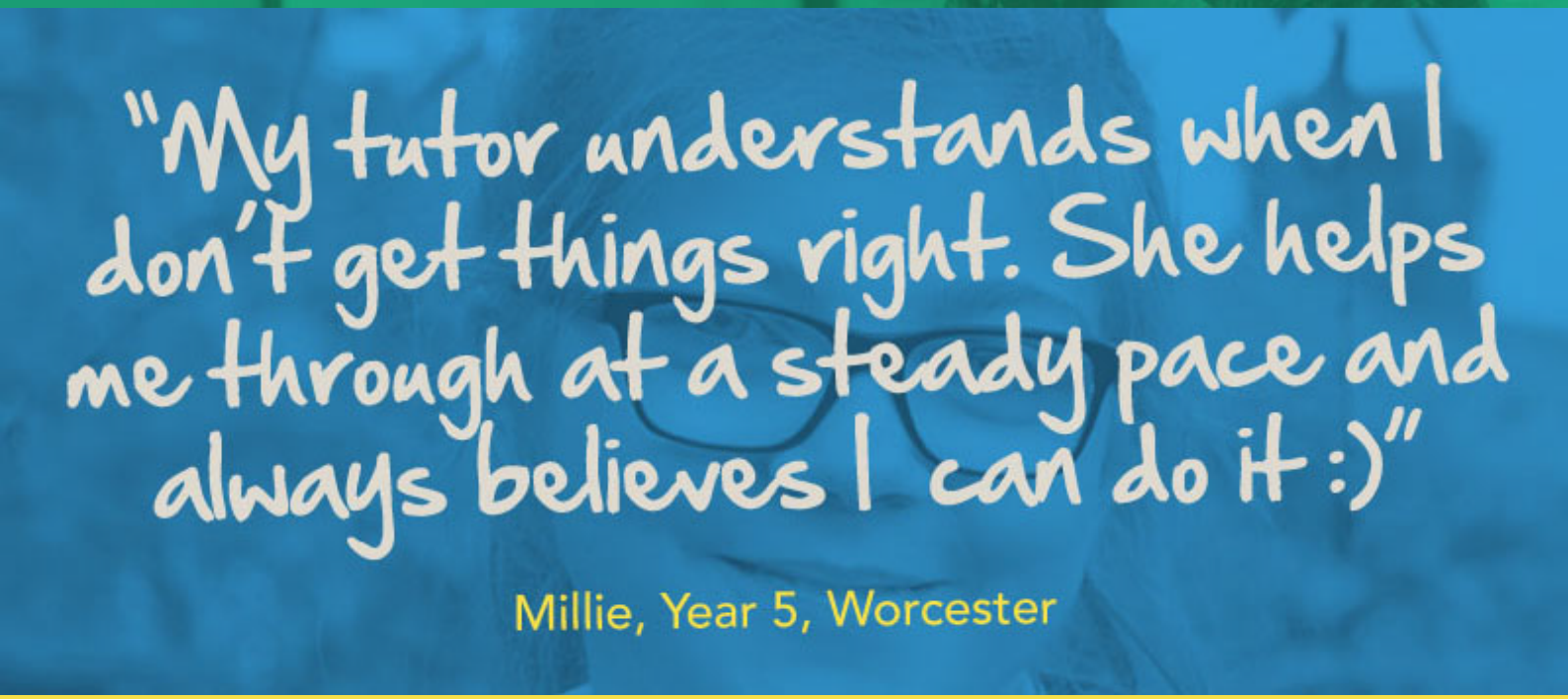

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