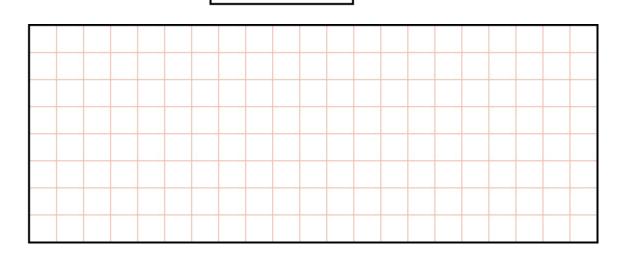
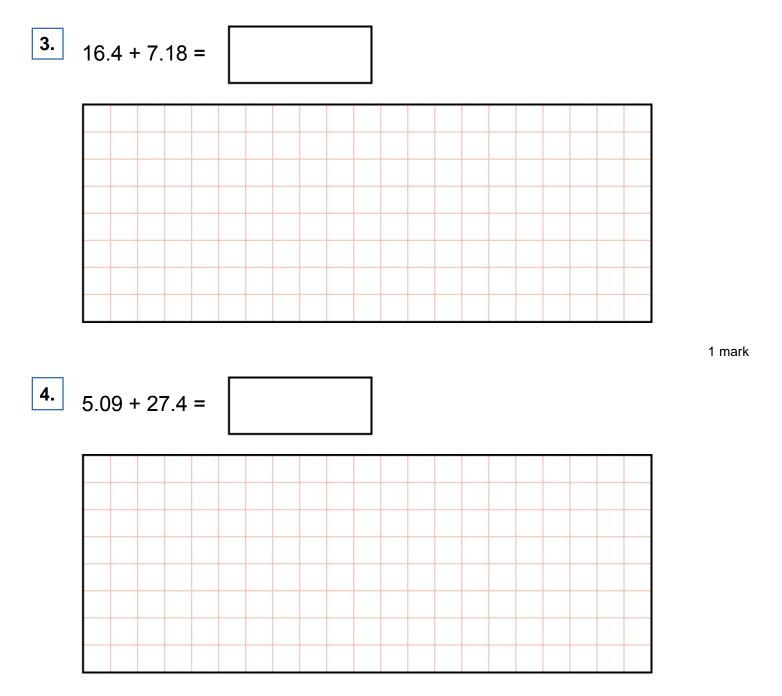


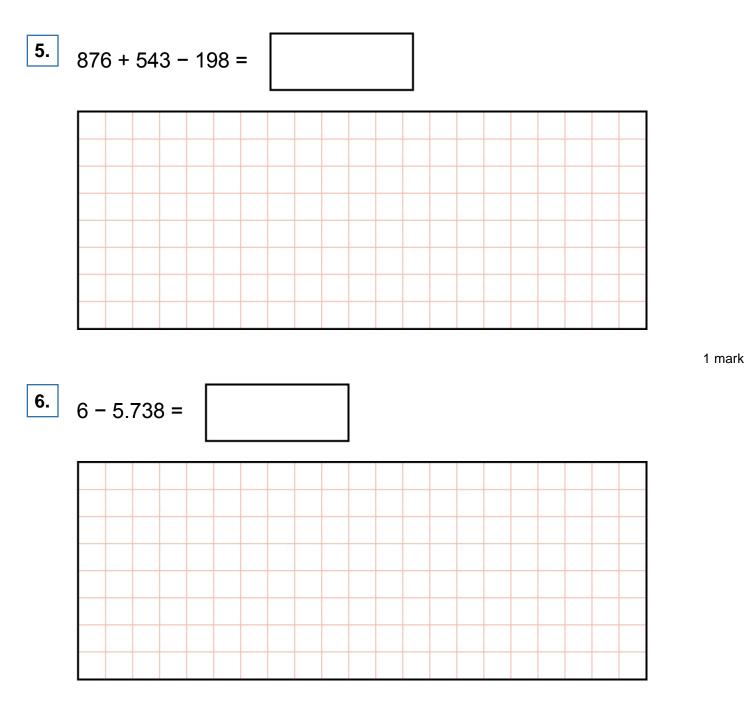
 Image: Solution of the state of the sta

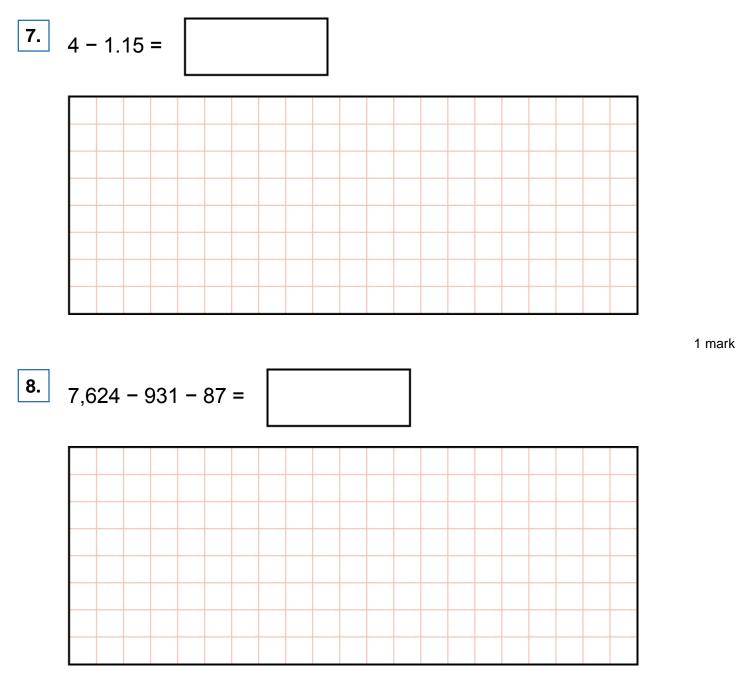
1 mark

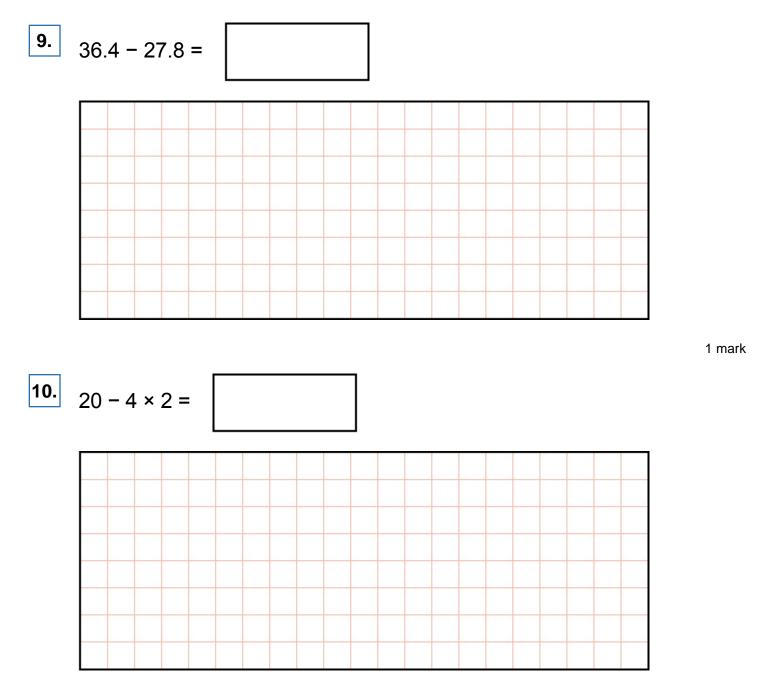
2. 15.98 + 26.314 =

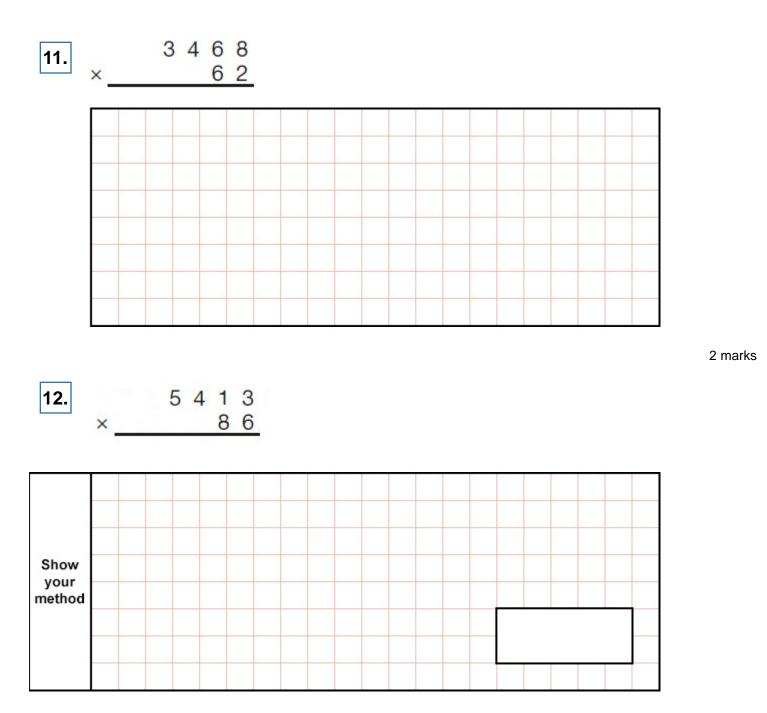




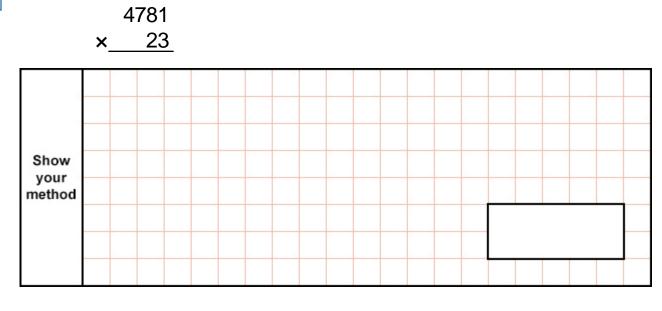




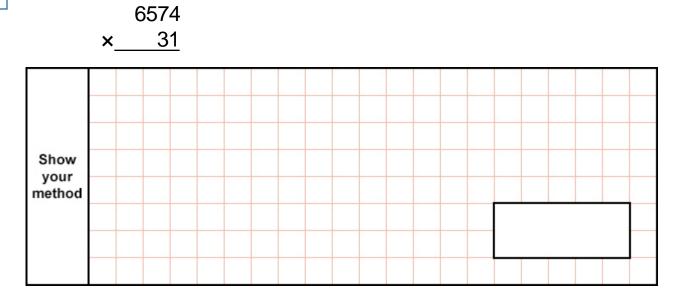




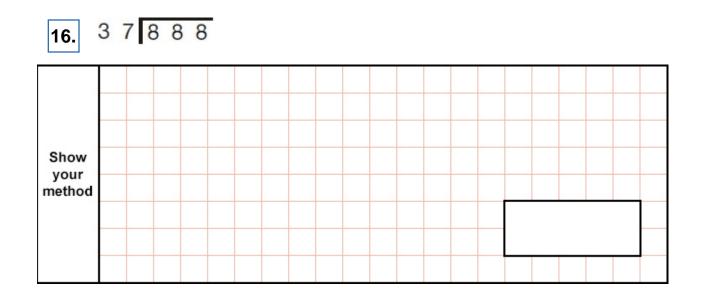
2 marks







2 marks

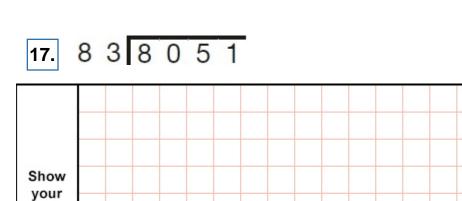


2 marks

Show your method

2 marks

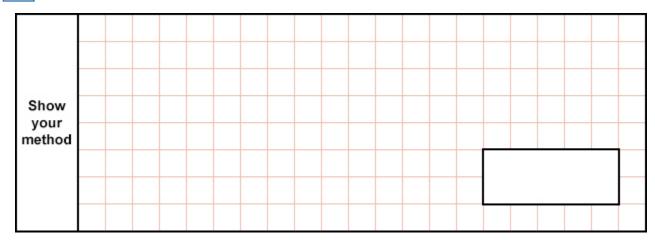
2 marks



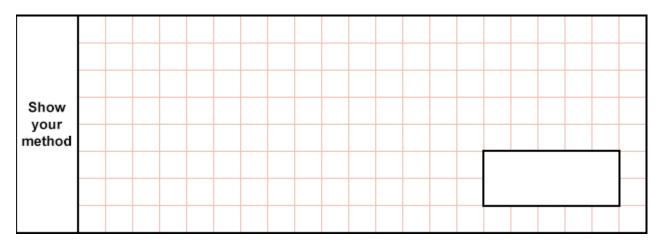
method

18. 978827



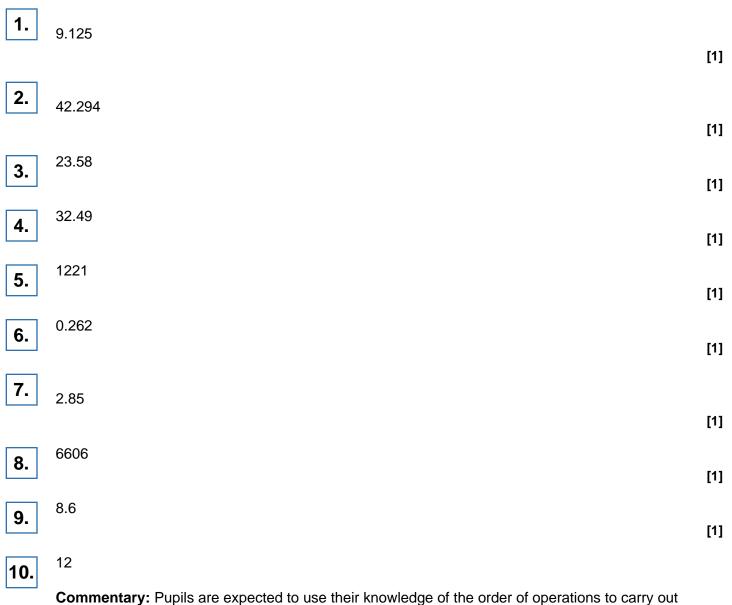


20. 29 725



2 marks

Mark schemes



Commentary: Pupils are expected to use their knowledge of the order of operations to carry out calculations involving the four operations (6C9) in this case to evaluate 4×2 first and then to subtract that product from 20.

[1]



If the answer is incorrect, award **ONE** mark for the formal method of long multiplication with no more than **ONE** arithmetic error, e.g.

3468 × <u>62</u> 6936 <u>208080</u> 214016 (error)

OR

•

• 3468

× <u>62</u> 6934 (error) <u>208080</u> 215014

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:

3468 × <u>62</u> 6936 <u>20808</u> (place value error) 27744

Up to 2m

If the answer is incorrect, award **ONE** mark for the formal method of long multiplication with no more than **ONE** arithmetic error, e.g.

5413 × 86 32478 433040 465438 (error)

OR

•

12.

5413 × 86 32478 423040 (error) 455518

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:

5413 × 86 32478 43304 (place value error) 75782

Up to 2m

Award TWO marks for the correct answer of 109,963

If the answer is incorrect, award **ONE** mark for a formal method of long multiplication with no more than **ONE** arithmetical error, e.g.

4781 × <u>23</u> 14343 <u>95620</u> 209963 (error)

OR

•

13.

4781 × <u>23</u> 14343 <u>95630</u> (error) 109973

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:

4781 ×<u>23</u> 14343 <u>9562</u> (place value error) 23905

Up to 2m

[2]



[1]

Award TWO marks for the correct answer of 203,794

If the answer is incorrect, award **ONE** mark for the formal method of long multiplication with no more than **ONE** arithmetical error,

e.g.

•

6574 × 31 6574 <u>143790</u> (error) 150364

OR

.

193794 (error)

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:

6574 × 31 6574 <u>19722</u> (place value error) 26296

Up to 2m

If the answer is incorrect, award **ONE** mark for the formal methods of division with no more than **ONE** arithmetic error, i.e.

• long division algorithm, e.g.

OR

16.

42 (error)	
37 888	
- 740	20 × 37
148	
- 148	4×37
0	

• short division algorithm, e.g.

2 3 r27 (error) 37 88¹⁴8

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.

Up to 2m

If the answer is incorrect, award **ONE** mark for the formal methods of division with no more than **ONE** arithmetic error, i.e.

• long division algorithm, e.g.

96 r82 83 8051 - 7470 580 (error) - 498 82

OR

٠

4	47 (error)	
83 805	51	
- 415	50	50 × 83
390	01	
- 332	20	40 × 83
58	81	
58	81	7 × 83
	0	

short division algorithm, e.g.

9 6 r73

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.

Up to 2m

If the answer is incorrect, award **ONE** mark for the formal methods of division with no more than **ONE** arithmetic error, i.e.

long division algorithm, e.g.

	81	(error)
97	8827	
-	8730	
	97	
-	97	
00	0	

OR

18.

	91 r2	2	
97	8827	7.0	
-	7760		80 × 97
	1069	(error)	
-	970		10 × 97
32	99		
-	97		1×97
	2		

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

Sometimes an error in calculation leads to a remainder which equals the truncated decimal equivalent. In such cases when the remainder is expressed as a decimal, evidence of working leading to the decimal must be seen in order to condone the possible notation error.

short division algorithm, e.g.

97 882⁹7

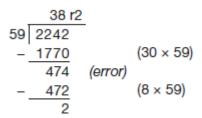
Short division methods **must** be supported by evidence of appropriate carrying figures to indicate the use of a division algorithm, and be a complete method. The carrying figure **must** be less than the divisor.

Up to 2m

Award **TWO** marks for the correct answer of 38

If the answer is incorrect, award **ONE** mark for a formal method of division with no more than **ONE** arithmetic error, i.e.

• long division algorithm, e.g.



OR

19.

	35	(error)	
59	2242		
-	1770		(30 × 59)
	472		
-	472		(8 × 59)
	0		

• short division algorithm, e.g.

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.

Up to 2m

Award TWO marks for the correct answer of 25

If the answer is incorrect, award **ONE** mark for the formal methods of division with no more than **ONE** arithmetical error, i.e.

$$29\overline{\smash{\big|}\,725}$$

$$-\frac{580}{145}$$

$$(20 \times 29)$$

$$-\frac{116}{31}(error) (4 \times 29)$$

$$-\frac{29}{2} (1 \times 29)$$

$$\begin{array}{r} & 29 \\ \hline 29 \\ \hline 725 \\ \hline (2 \times 29) \\ \hline - \frac{145}{0} \\ \hline (5 \times 29) \\ \end{array}$$

• short division algorithm, e.g.

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.

Up to 2m