Q1.

Write the two missing digits.
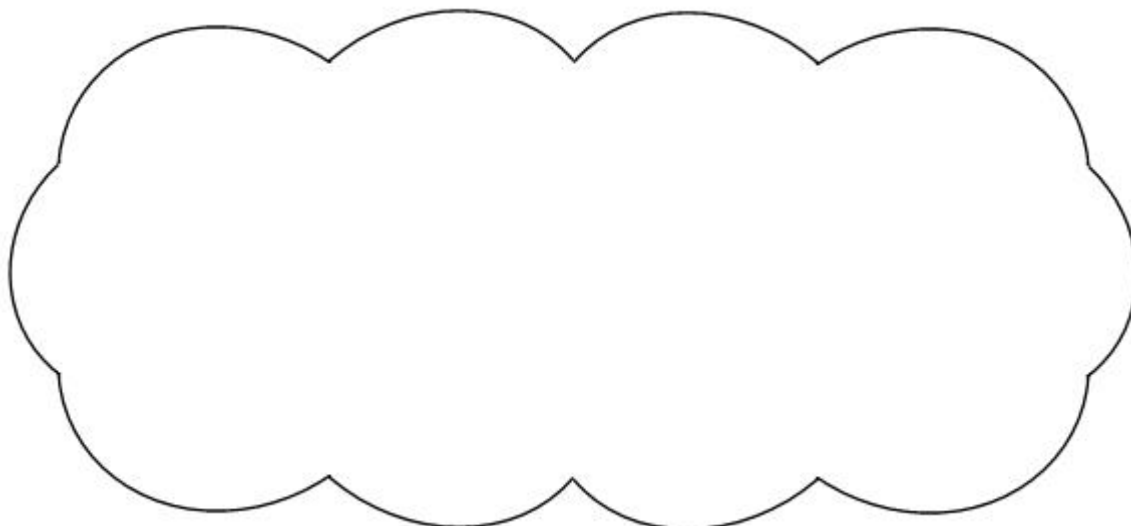
$$\boxed{}\boxed{1} - \boxed{2}\boxed{} = 34$$

Q2.

$$5{,}542 \div 17 = 326$$

Explain how you can use this fact to find the answer to **18 × 326**

Q3.

Write the missing fraction.

$$\frac{1}{3} + \frac{1}{4} + \boxed{} = 1$$

Q4.

Write the missing digits to make the addition correct.

$$\begin{array}{r} 1 \;\boxed{}\; 1 \\ +\; \boxed{}\; 1 \;\boxed{} \\ \hline 9 \;\; 0 \;\; 0 \end{array}$$

1 mark

Q5.

Stefan completes this calculation.

$$\begin{array}{r} 9 \quad 5 \\ -\; 6 \quad 7 \\ \hline 2 \quad 8 \end{array}$$

Write an **addition** calculation he could use to check his answer.

$$\begin{array}{r} \boxed{}\;\boxed{} \\ +\; \boxed{}\;\boxed{} \\ \hline \boxed{}\;\boxed{} \end{array}$$

1 mark

Q6.

Write the missing number.

$$70 \div \boxed{} = 3.5$$

Q7.

Write the missing digits to make this **addition** correct.

$$\boxed{}\,2\,\boxed{} + \boxed{}\,2 = 200$$

Q8.

Write the missing numbers to make this **multiplication** grid correct.

×	$\boxed{}$	$\boxed{}$
9	63	54
$\boxed{}$	56	48

Q9.

A **square** number and a **prime** number have a total of 22

What are the two numbers?

$$\boxed{} + \boxed{} = 22$$

square number   prime number

Q10.

Write the missing number.

One is done for you.

180   is 20 more than   →   160

[   ]   is 20 more than   →   237

<div align="right">1 mark</div>

Q11.

Complete this table with the missing numbers.

One row has been done for you.

Number	1,000 more
3,500	4,500
85	
	9,099
	15,250

<div align="right">2 marks</div>

Q12.

Write the three missing digits to make this **addition** correct.

$$
\begin{array}{ccccc}
 & 5 & 3 & 2 & \boxed{} & 9 \\
+ & & 7 & 4 & 2 & \boxed{} \\
\hline
\boxed{} & 0 & 6 & 7 & 6 \\
\end{array}
$$

<div align="right">2 marks</div>
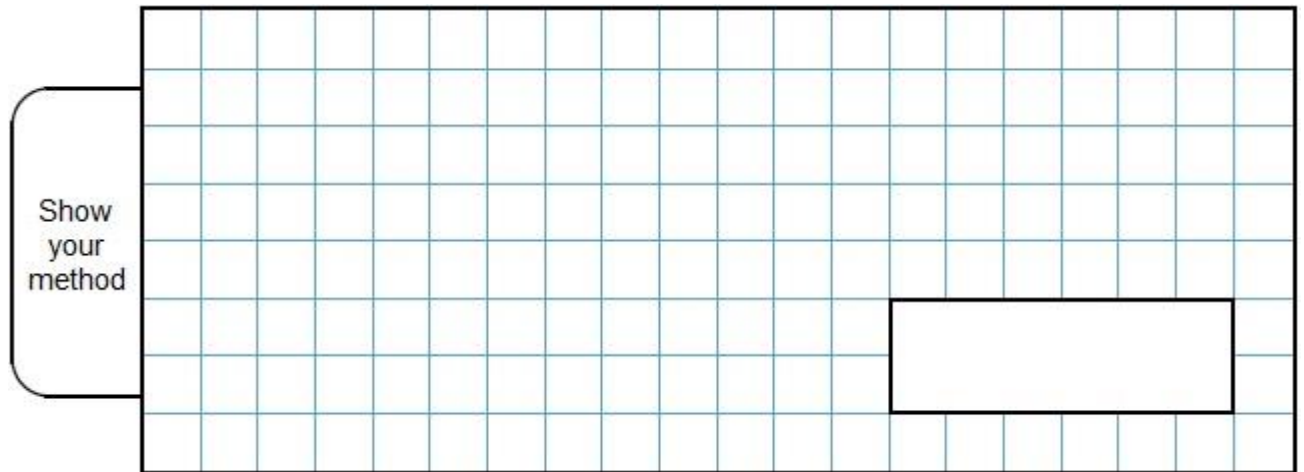
Q13.

Jack chose a number.

He multiplied the number by 7

Then he added 85

His answer was 953

What number did Jack choose?

Show your method

2 marks

Q14.

In this sequence, the rule to get the next number is

Multiply by 2, and then add 3

Write the missing numbers.

	25	53	

2 marks

Q15.

The numbers in this sequence **increase** by 45 each time.

Write the missing numbers.

	155 200 245		

2 marks

Mark schemes

Q1.

| 6 | 1 | − | 2 | 7 | = 34 |

U1

[1]

Q2.

An explanation that shows that 5,868 can be made by adding 326 to 17 × 326, e.g.

- '5542 + 326 = 18 × 326'
- '18 × 326 is 326 more than 5,542'
- 'Because this is the same as 17 × 326 = 5542 so add one more 326 to get the answer'
- 'You add 326 to 5,542 and your answer will be correct'
- 'Because you can add 326 to the answer of 17 × 326'
- '5542 + 326'.

> ***Do not*** *accept an explanation that simply calculates*
> *326 × 18 = 5,868.*
>
> ***Do not*** *accept vague or incomplete, or incorrect*
> *explanations, e.g.*
>
> - *'You could add another 326'*
>
> - *'The difference between 17 and 18 is 1 so you add 326*
>   *and that is one more'*
>
> - *'Because if you turn the question around you would see*
>   *that 17 × 326 = 5542 so all you need to do is times the*
>   *number one more time'*
>
> - *'5,542 + 326 because it is one more'.*
>
> - *5868 − 326 = 5542.*

[1]

Q3.

$\dfrac{5}{12}$

[1]

Q4.

```
  1  8  1
+ 7  1  9
  ─────────
  9  0  0
```

[1]

Q5.

Correct addition calculation, as shown:

```
    2  8
+   6  7
  ──────
    9  5
```

OR

```
    6  7
+   2  8
  ──────
    9  5
```

*All 6 digit cards must be completed correctly for the award of **ONE** mark.*

[1]

Q6.

20

[1]

Q7.

Addition completed, as shown

```
1  2  8  +  7  2  =  2  0  0
```

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

[1]

Q8.

Three boxes completed correctly as shown:

[1]

Q9.

Both numbers correct as shown:

Numbers must be in the correct order.

Do not *accept:*

[1]

Q10.
257

[1]

Q11.

Award **TWO** marks for three boxes completed correctly as shown:

Number	1,000 more
3,500	4,500
85	**1,085**
8,099	9,099
14,250	15,250

If the answer is incorrect, award **ONE** mark for two boxes completed correctly.

Up to 2m

[2]

Q12.

Award **TWO** marks for numbers completed, as shown:

Award **ONE** mark for any two numbers completed correctly.

<div align="right">Up to 2m</div>

<div align="right">[2]</div>

Q13.

Award **TWO** marks for the correct answer of 124

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

- 953 − 85 = 868
  868 ÷ 7

> *Answer need not be obtained for the award of* **ONE** *mark*
>
> *If the pupil's evaluation contradicts the appropriate method, the method mark will not be awarded.*

<div align="right">Up to 2m</div>

<div align="right">[2]</div>

Q14.

(a) 11 written in the first box, as shown:

11	25	53	

<div align="right">1</div>

(b) 109 written in the last box, as shown:

	25	53	109

<div align="right">1</div>

<div align="right">[2]</div>

Q15.

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

110	155	200	245	290	335

Award **ONE** mark for:

- any **TWO** numbers correctly placed

OR

- if box 1 is correct, accept correct follow-through for box 3 from the incorrect value in box 2.

__Do not__ accept misreads for this question.

Up to 2m

[2]