

Q1.

$$23 \times 36 = 23 \times 9 \times \boxed{}$$

1 mark

Q2.

This three-digit number has **2** and **7** as **factors**.

2 9 4

Write another **three-digit** number which has **2** and **7** as **factors**.

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1 mark

Q3.

The factor pairs of 8 are

1

 and

8

2

 and

4

Write all the factor pairs of 42

1

 and

42

2

 and

--

--

 and

--

6

 and

--

2 marks

Q4.

Complete this sentence.

Every number with a factor of **10** must also have factors of

and and

1 mark

Q5.

Write the missing numbers.

Factors of 20 = {1, _____, _____, _____, _____, 20}

1 mark

Q6.

Write in the **two** missing digits.

$$\begin{array}{|c|c|} \hline \square & 0 \\ \hline \end{array} \times \begin{array}{|c|c|} \hline \square & 0 \\ \hline \end{array} = \begin{array}{|c|c|c|c|} \hline 3 & 0 & 0 & 0 \\ \hline \end{array}$$

1 mark

Q7.

Here are four number cards.

3 12 7 4

Which two number cards are **factors of 42**?

and

1 mark

Q8.

1 and 48 is factor pair of 48

Find three other factor pairs of 48

	and	
	and	
	and	

2 marks

Q9.

Here are four digit cards.

7	5	2	1
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Choose two cards each time to make the following two-digit numbers.

The first one is done for you.

an even number	5	2
a multiple of 9		
a square number		
a factor of 96		

2 marks

Q10.

Tick the numbers that are common factors of both **12 and 18**

2

3

6

9

12

2 marks

Q11.

Write all the factors of 30 which are **also** factors of 20

2 marks

Q12.

Write three factors of 30 that are **not** factors of 15

2 marks

Q13.

Write **all** the numbers between 50 and 100 that are **factors of 180**

2 marks

Mark schemes

Q1.

4

[1]

Q2.

Any 3-digit number that is a multiple of 14, eg:

3	0	8
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Any acceptable answers will be even numbers which divide by 7

Do not accept '0' in the hundreds box.

Only **three digit** numbers are acceptable.

[1]

Q3.

All four correct

1 & 42

2 &

21

3

 &

14

6 &

7

2

or

any three correct

1

[2]

Q4.

1, 2 and 5

Numbers may be given in any order.

[1]

Q5.

2, 4, 5, 10

All correct, in any order for 1 mark.

[1]

Q6.

5 and 6 written in the boxes in either order as shown:

5	0	×	6	0	=	3	0	0	0
---	---	---	---	---	---	---	---	---	---

OR

$$\boxed{6} \boxed{0} \times \boxed{5} \boxed{0} = \boxed{3} \boxed{0} \boxed{0} \boxed{0}$$

[1]

Q7.

Cards completed as shown:

$\boxed{3}$ and $\boxed{7}$

Accept answers in either order.

[1]

Q8.

Award **TWO** marks for any three of the following pairs, as shown. Factor pairs can be in either order.

2 and 24

3 and 16

4 and 12

6 and 8

Award **ONE** mark for any two of the above pairs.

[2]

Q9.

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

• a multiple of 9 $\boxed{2} \boxed{7}$ OR $\boxed{7} \boxed{2}$

• a square number $\boxed{2} \boxed{5}$

• a factor of 96 $\boxed{1} \boxed{2}$

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

Up to 2

[2]

Q10.

Award **TWO** marks for only three correct boxes ticked, as shown:

2 $\boxed{\checkmark}$

3

6

9

12

Award **ONE** mark for:

- only two correct boxes ticked and no incorrect boxes ticked

OR

- three correct boxes ticked and one incorrect box ticked.

Accept alternative unambiguous positive indications, e.g. Y.

Up to 2 marks

[2]

Q11.

Award **TWO** marks for all four factors, as shown:

1, 2, 5, 10

If the answer is incorrect, award **ONE** mark for:

- three factors correct and none incorrect

OR

- four factors correct and one incorrect.

Accept factors written in any order.

*All four factors and no incorrect numbers must be given for the award of **TWO** marks.*

Up to 2

[2]

Q12.

Award **TWO** marks for any three of the following numbers written in any order:

- 2
- 6
- 10
- 30

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

Up to 2m

[2]

Q13.

Award **TWO** marks for the correct answer of 60 **AND** 90
Numbers may be given in either order.

If the answer is incorrect, award **ONE** mark for:

- both numbers correct and one or more additional factors of 180

eg 30, 45, **60**, **90**

OR

- both numbers correct and one number which is not a factor of 180

eg **60**, **90**, 100

OR

- one number correct and none incorrect.

eg **60**

Up to 2

[2]