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

Multiply by 2, and then add 3

Write the missing numbers.

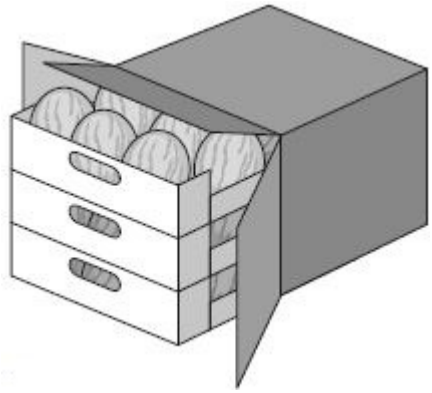
	25	53	

2 marks

2. A box contains trays of melons.

There are 15 melons in a tray.

There are 3 trays in a box.



A supermarket sells **40** boxes of melons.

How many melons does the supermarket sell?

Show your method

melons

2 marks

3.

Write the correct symbol in each box to make the statements correct.

11×12 ☐ 15×10

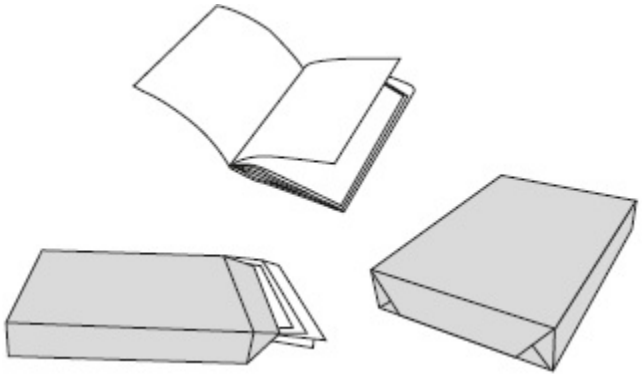
$90 \div 30$ ☐ $60 \div 20$

$120 \div 4$ ☐ $160 \div 8$

30×8 ☐ 100×10

2 marks

4. Adam is making booklets.



Each booklet must have **34** sheets of paper.

He has **2** packets of paper.

There are **500** sheets of paper in each packet.

How many complete booklets can Adam make from **2** packets of paper?

Show your method

booklets

2 marks

5. Layla makes jewellery to sell at a school fair.

Each bracelet has **53** beads.

She makes **68** bracelets.

Each necklace has **105** beads.

She makes **34** necklaces.

How many beads does Layla use **altogether?**

Show your method

beads

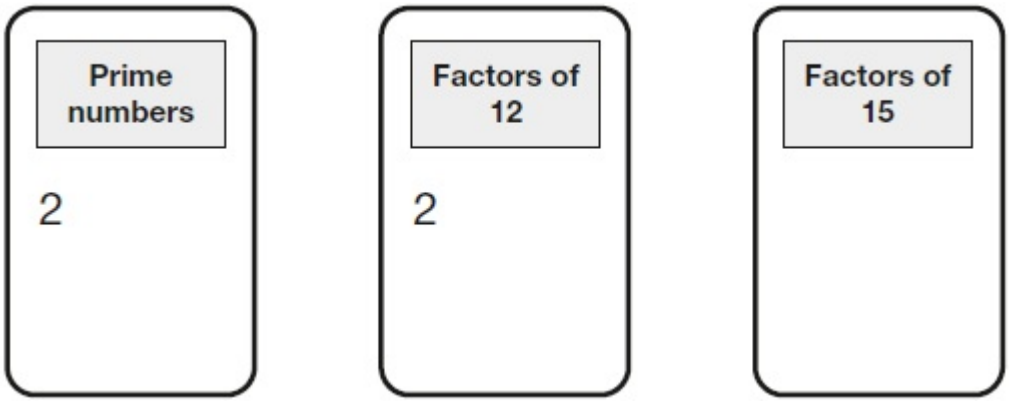
3 marks

6. Here are five numbers.

~~2~~ 3 4 5 6

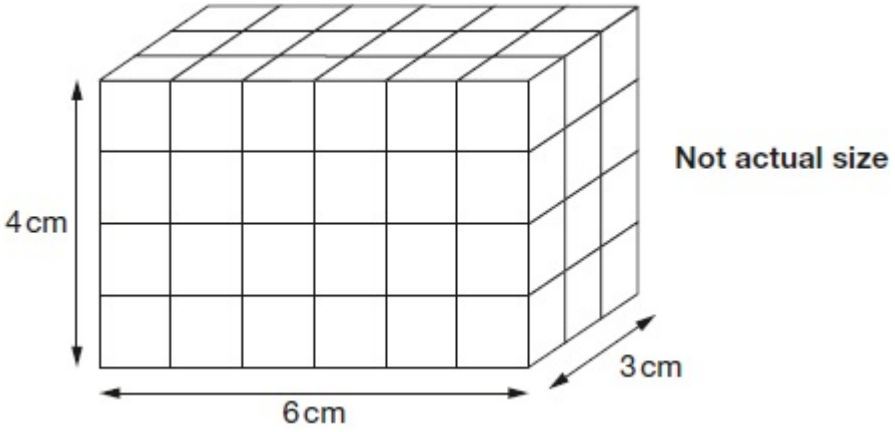
Write each number on the correct cards.

The number 2 has been written on the correct cards for you.



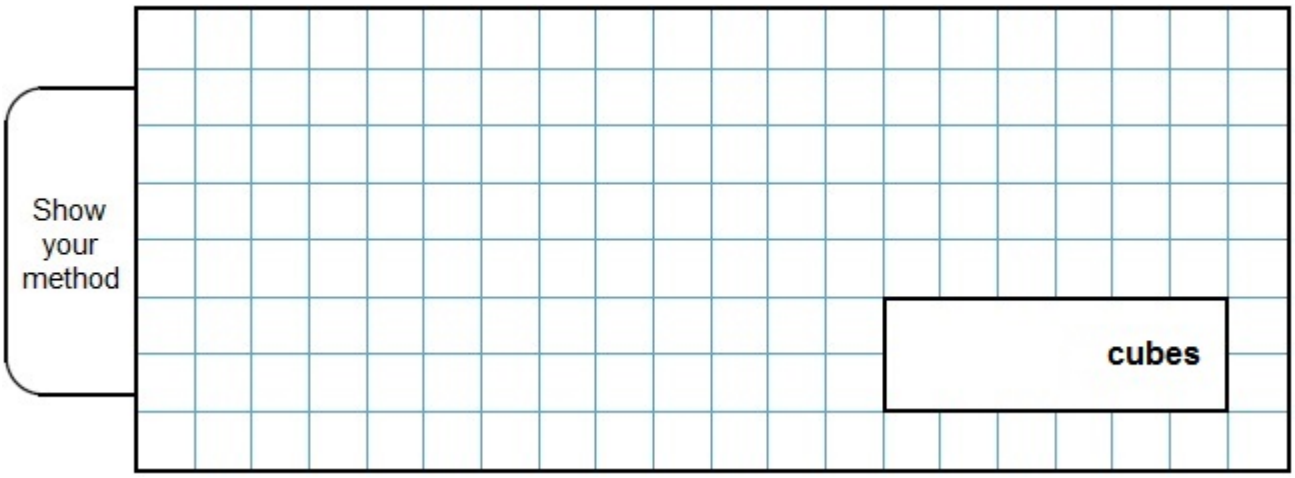
2 marks

7. Amina made this cuboid using centimetre cubes.



Stefan makes a cuboid that is 5 cm longer, 5 cm taller and 5 cm wider than Amina's cuboid.

What is the **difference** between the number of cubes in Amina's and Stefan's cuboids?



2 marks

8. A theme park sells tickets online.

Each ticket costs £24

There is a £3 charge for buying tickets.

Which of these shows how to calculate the total cost, in pounds?

Tick **one**.

number of tickets × 3 + 24 ☐

number of tickets × 24 + 3 ☐

number of tickets + 3 × 24 ☐

number of tickets + 24 × 3 ☐

1 mark

9. Write the missing number.

$6 + 2 \times 2 - \square = 6$

1 mark

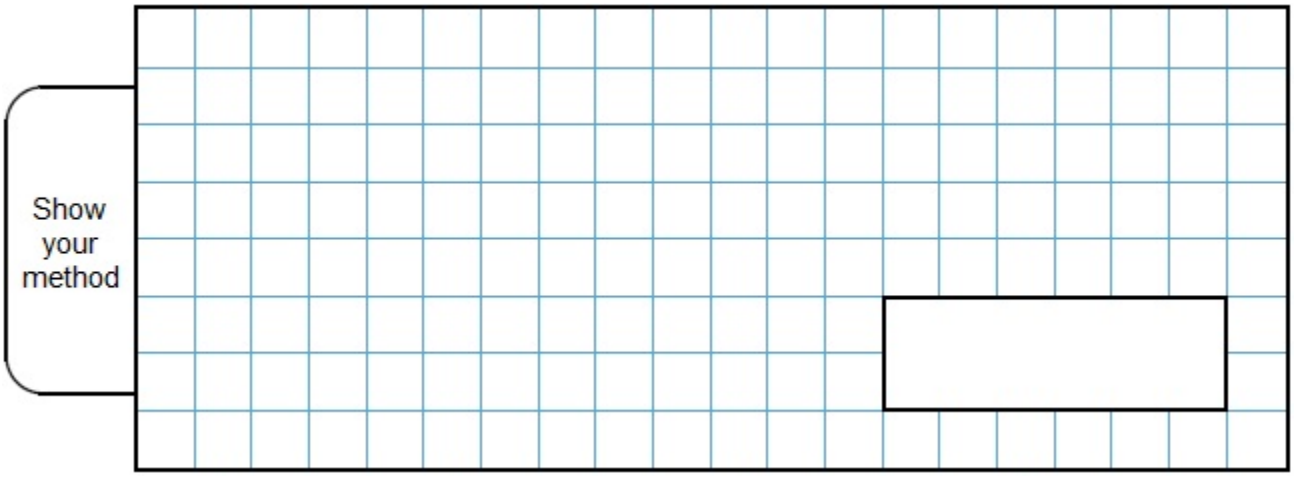
10. Jack chose a number.

He multiplied the number by 7

Then he added 85

His answer was 953

What number did Jack choose?



2 marks

Mark schemes

1.

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

1

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

1

[2]

2.

Award **TWO** marks for the correct answer of 1800

If the answer is incorrect, award **ONE** mark for evidence of appropriate complete method with no more than one arithmetic error, e.g.

- 40 × 15 = 500 *(error)*
  500 × 3 = 1500

  Do not *accept sight of a correct multiplication, e.g. 40 × 15 × 3, for* ***ONE*** *mark unless part of the calculation is evaluated correctly.*

  Misreads are ***not*** *allowed.*

If no answer is given, the first part of the calculation must be evaluated correctly for the award of **ONE** mark, e.g.

- 15 × 3 = 45
  45 × 40 =

OR

- 40 × 15 = 600
  600 × 3 =

OR

- 40 × 3 = 120
  120 × 15 =

Up to 2m

[2]

3. Award **TWO** marks for all symbols correct, as shown:

11 × 12	**<**	15 × 10
90 ÷ 30	**=**	60 ÷ 20
120 ÷ 4	**>**	160 ÷ 8
30 × 8	**<**	100 × 10

Award **ONE** mark for any three symbols correct.

Up to 2 marks

[2]

4. Award **TWO** marks for the correct answer of 29

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

- 2 × 500 = 1,000
  1,000 ÷ 34 =

OR

- 2 × 500 ÷ 34 =

OR

- 500 ÷ 34 = 14 r23 *(error)*
  14 r23 × 2 = 28 r46

OR

- 34 × 10 = 340
  34 × 30 = 1,020

Answer = 30 booklets *(error)*

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

*Answer does not need to have been rounded or rounded correctly for the award of **ONE** mark.*

If a pupil reaches a non-integer answer, for example 28 r2 and expresses it as 28.2 without further working, this is considered a notation error and is condoned.

*Within an appropriate method, if the pupil's remainder from 500 divided by 34 is less than 17 and this remainder is ignored before doubling, this is acceptable for **ONE** mark. If the pupil's remainder is 17 or more and it has been ignored before doubling, this is **not** acceptable for **ONE** mark.*

***Do not** accept a trial and improvement method.*

Up to 2 marks

[2]

5. Award **THREE** marks for the correct answer of 7,174

If the answer is incorrect, award **TWO** marks for:

- evidence of an appropriate complete method which contains no more than **ONE** arithmetic error, e.g.

$$\begin{array}{r} 53 \\ \times\ 68 \\ \hline 3504 \end{array}\ \textit{(error)} \qquad \begin{array}{r} 105 \\ \times\ 34 \\ \hline 3570 \end{array}$$

3,504 + 3,570 = 7,074

Award **ONE** mark for:

- evidence of an appropriate method with more than **ONE** arithmetic error.

OR

- sight of 3,604 as evidence of long multiplication step (68 × 53) completed correctly.

OR

- sight of 3,570 as evidence of long multiplication step (105 × 34) completed correctly.

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

*A misread of a number may affect the award of marks. No marks are awarded if there is more than **ONE** misread or if the mathematics is simplified.*

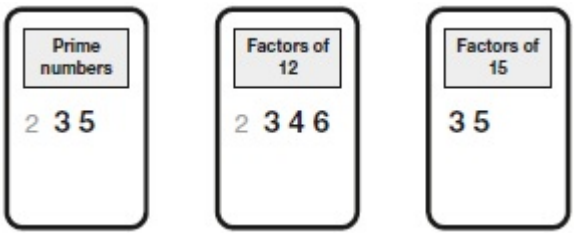
***TWO** marks will be awarded if an appropriate method with the misread number is followed through correctly.*

***ONE** mark will be awarded for evidence of an appropriate method with the misread number followed through correctly with no more than **ONE** arithmetic error.*

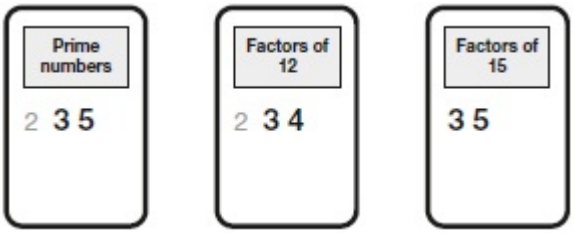
Up to 3m

[3]

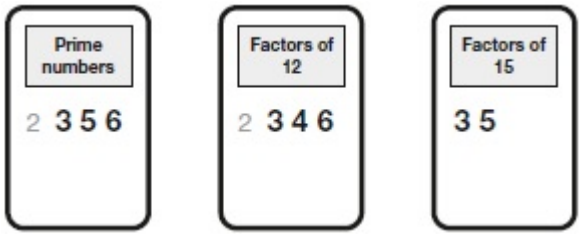
6. Award **TWO** marks for all four given numbers placed completely correctly 7 times, as shown:



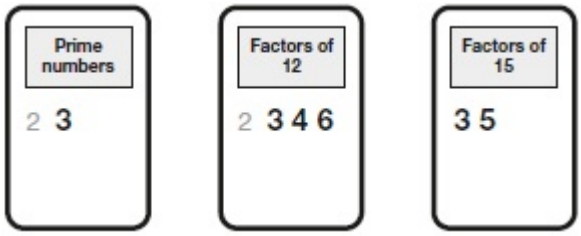
If the answer is incorrect, award **ONE** mark for three of the given numbers all placed completely correctly, e.g.



OR



OR



Accept the numbers in any order.

Ignore any additional numbers not given in the question.

Up to 2m

[2]

7. Award **TWO** marks for the correct answer of 720

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

- 3 × 4 × 6 = 72
  8 × 9 × 11 = 792
  792 – 72 =

Award **ONE** mark for sight of 792

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

Up to 2m

[2]

8. Second box only ticked correctly, as shown:

number of tickets × 3 + 24	☐
number of tickets × 24 + 3	✓
number of tickets + 3 × 24	☐
number of tickets + 24 × 3	☐

Accept alternative unambiguous positive indication of the correct answer, e.g. Y.

[1]

9. 4

[1]

10. 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.

Up to 2m

[2]