Q1.

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

Q2.
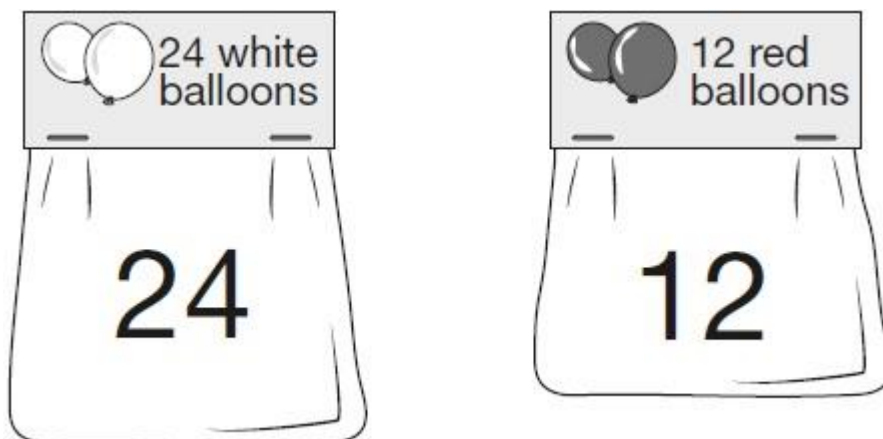
24 white balloons

24

12 red balloons

12

Adam buys **6** bags of white balloons.

Chen buys **3** bags of red balloons.

Adam says,

'I have four times as many balloons as Chen.'

Explain why Adam is correct.

1 mark

Q3.

A toy shop orders 11 boxes of marbles.

Each box contains 6 bags of marbles.

Each bag contains 45 marbles.

How many **marbles** does the shop order in total?

Show your method

	marbles

2 marks

Q4.

Write the two missing digits to make this **long multiplication** correct.

```
        4  ☐
    ×   ☐  6
    ─────────
        2  4  6
     8  2  0
    ─────────
  1  0  6  6
```

Q5.

In this tower, two numbers are **multiplied** to give the number above.

12

4	3
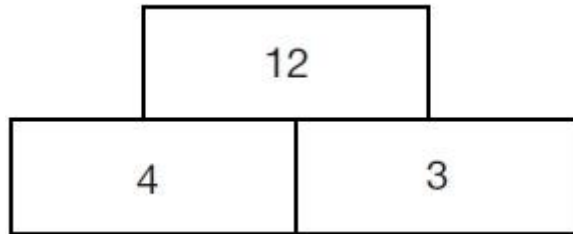
Write the missing numbers in the tower below to make it correct.

75	24

		4
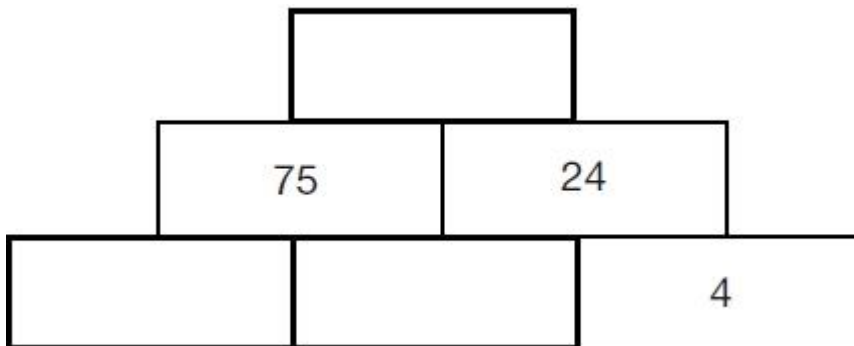
2 marks

Mark schemes

Q1.

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.

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

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]

Q2.

An explanation that shows Adam has four times as many balloons as Chen, e.g.

- 24 × 6 is 4 times as many as 12 × 3
- 144 is four times 36
- 144 ÷ 4 = 36
- 144 ÷ 36 = 4
- 36 × 4 = 144
- Adam buys twice as many bags of twice as many balloons, so it's doubled twice
- 24 is double 12 and 6 is double 3, so it's doubled twice
- Chen buys half the amount of bags and each bag has half the number of balloons, so he has $\frac{1}{4}$ of the amount.

[1]

Q3.

Award **TWO** marks for the correct answer of 2,970.

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

• $11 \times 6 = 66$

    66×45

> *Do not* accept sight of a correct multiplication only, e.g. *11 × 6 × 45*, for **ONE** mark.
>
> *Misreads are* **not** *allowed.*

Up to 2m

[2]

Q4.

Award **TWO** marks for both digits correct, as shown:

```
      4 1
  ×   2 6
    2 4 6
    8 2 0
  1 0 6 6
```

If the answer is incorrect, award **ONE** mark for one digit correct.

Up to 2

[2]

Q5.

Gives the three correct numbers in their correct positions, ie:

> *Accept unambiguous indication*
> *Accept equivalent fractions and decimals, eg:*

- *accept* $12\frac{3}{6}$ *for 12.5*

2

or

Gives two correct numbers in their correct positions

1

[2]