

Long Multiplication

$$\begin{array}{r} 612 \\ \times 24 \\ \hline 2448 \\ 12240 \\ \hline 14688 \end{array}$$

Quick Look:

Explanation: Long multiplication method is to be used when **multiplying by a 2 digit number**. Children need to learn when it is appropriate to use short or long multiplication.

Visual Guide:

$$\begin{array}{r} 391 \\ \times 39 \\ \hline 3519 \\ \square \quad 8 \quad \square \\ 11730 \\ \square \quad \square \quad \square \\ \hline 15249 \end{array}$$

First we multiply each of the digits 391 by 9.

$$9 \times 1 = 9$$

$$9 \times 9 = 81$$

(put the 1 down; carry the 8)

$$9 \times 3 = 27$$

$$27 + (\text{carried}) 8 = 35$$

Now we multiply each of the digits 391 by 3. Because it is actually 30, not 3, we put a zero down first.

$$3 \times 1 = 3$$

$$3 \times 9 = 27$$

(put the 7 down and carry the 2)

$$3 \times 3 = 9$$

(plus the 2 which makes 11)

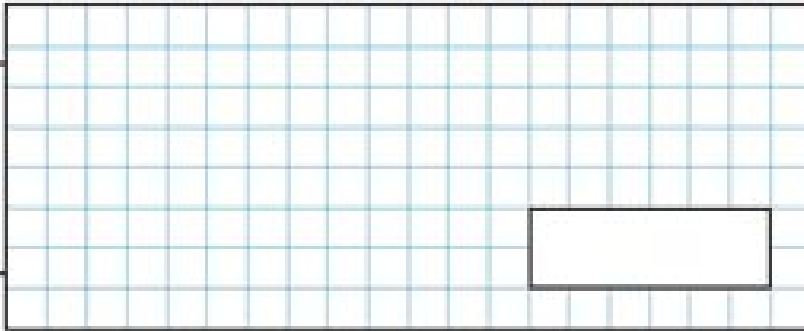
Last of all, we add the results of our calculations to get the answer.

$$3519 + 11730 = 15249$$

Past Test Questions:

$$\begin{array}{r} 836 \\ \times 27 \\ \hline \end{array}$$

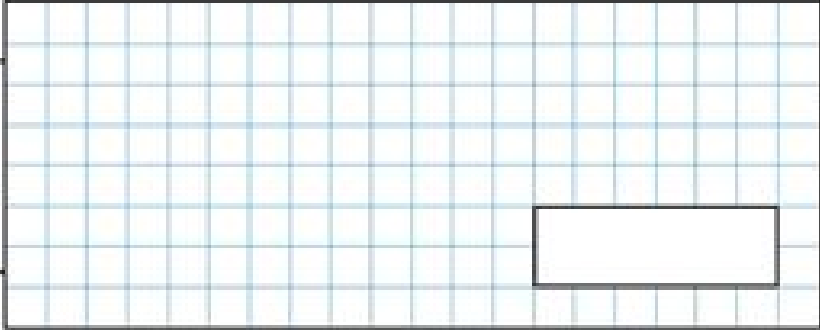
Show your method



2 marks

$$\begin{array}{r} 785 \\ \times 23 \\ \hline \end{array}$$

Show your method

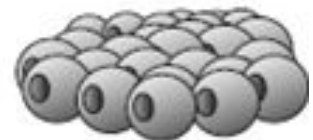


2 marks

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**?