

Division by 'chunking' (3)

(2 digit by 1 digit – vertical recording)

Today your child's homework involves calculating/solving problems, using 'chunking' to divide. This is a method that builds on division as repeated subtraction and allows them to see easily what is being done.

Example: If there are 6 eggs in a box, how many boxes can be filled with 87 eggs?

So we need $87 \div 6$. What this calculation means is '**How many sixes are there in 87?**' One way to do this is to subtract each individual 6, as you would when packing the boxes, but this would be inefficient. We need to think about bigger, friendly 'chunks' of 6, such as ten boxes of six ($6 \times 10 = 60$). This makes the subtraction easier and quicker.

Below you can see how the calculation can be recorded. First 60 (6×10) is subtracted. This is best done mentally by counting on from 60 to 87, to leave 27 eggs not in boxes. You then consider how many more boxes can be filled. $6 \times 4 = 24$ and when these are subtracted, by counting on from 24 to 27, we have 3 eggs left.

$$\begin{array}{r} 87 \\ \underline{60} \quad (10 \text{ boxes}) \\ 27 \\ \underline{24} \quad (4 \text{ boxes}) \\ 3 \end{array}$$

This is not enough to fill a further box so **14 boxes can be filled.**