

Division by 'chunking' (4)

(3 digit by 2 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 28 chocolates in a box, how many boxes can be filled with 350 chocolates?

So we need $350 \div 28$. What this calculation means is '**How many 28s are there in 350?**' One way to do this is to subtract individual 28s but this would be inefficient and time-consuming. We need to think about bigger, friendly 'chunks' of 28 such as ten boxes of 28 ($28 \times 10 = 280$). This makes the subtraction easier and quicker.

Below you can see how the calculation can be recorded. First 280 (28×10) is subtracted. This is best done mentally by counting on from 280 to 350, to leave 70 chocolates not in boxes. You then consider how many more boxes can be filled. $28 \times 2 = 56$ and when these are subtracted, by counting on from 56 to 70, we have 14 chocolates left.

$$\begin{array}{r} 350 \\ \underline{280} \quad (10 \text{ boxes}) \\ 70 \\ \underline{56} \quad (2 \text{ boxes}) \\ 14 \end{array}$$

This is not enough to fill a further box so **12 boxes can be filled.**