

Division - using partitioning(3)

(2 digit by 1 digit)

Today your child's homework involves calculating/solving problems, using partitioning to divide.

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 using partitioning based on multiples of the number you are dividing by (the divisor).

So the 87 is partitioned into 60 (6×10) and the remaining 27. Each is divided by 6 and then recombined to solve the problem.

$$60 \div 6 = 10$$

$$27 \div 6 = 4 \text{ remainder } 3$$

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