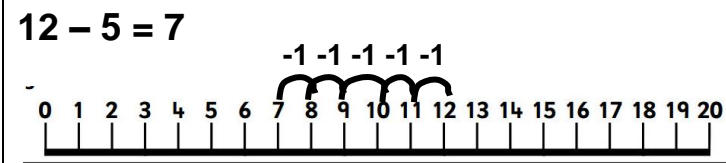


Children need to look at the numbers in a calculation and decide if it is going to be easier and quicker to 'count on' or 'count back'.

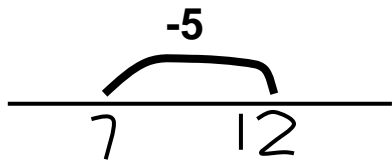
To make this decision children need to develop a 'feel' for the relative size of numbers. Most children are more successful when counting on, but when a 'small' number is subtracted from a 'big' number counting back can be the most efficient method.

Counting back

On a structured number line: find the largest number (12) and count backwards 5.



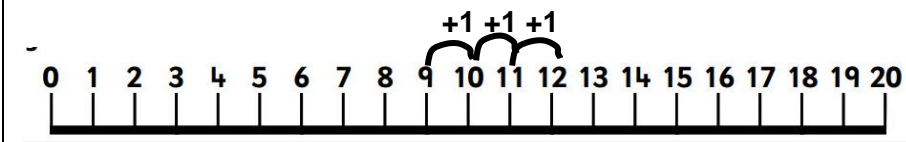
On an empty number line: $12 - 5 = 7$



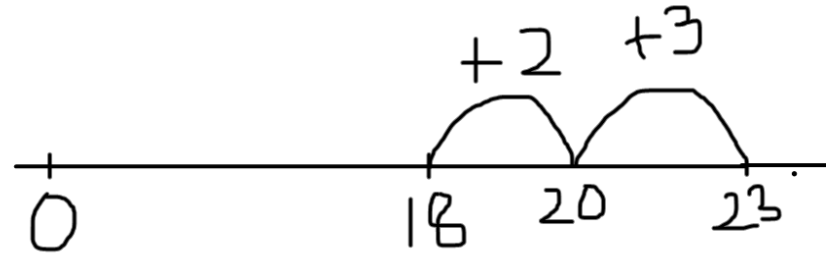
Counting on

$12 - 9 = 3$ (the difference between 9 and 12)

On a structured number line count from the smallest number (9) to the largest (12).



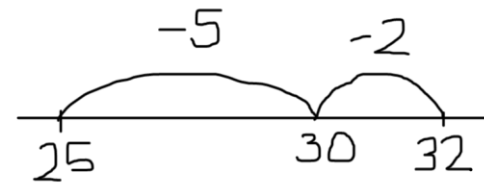
$23 - 18 = 5$ (the difference between 18 and 23)



Start on 18, jump 2 to 20, jump 3 to 23, so 23 is 5 more than 18.

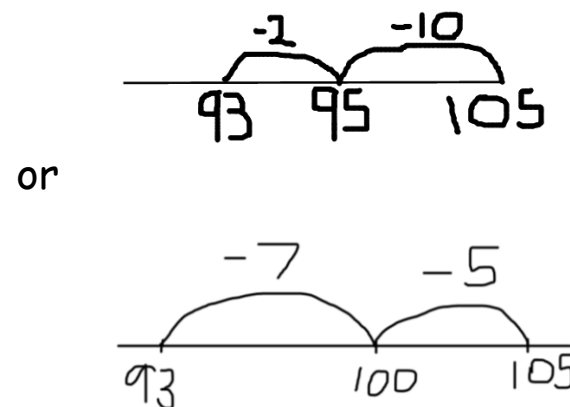
Counting back with larger numbers

$32 - 7 = 25$



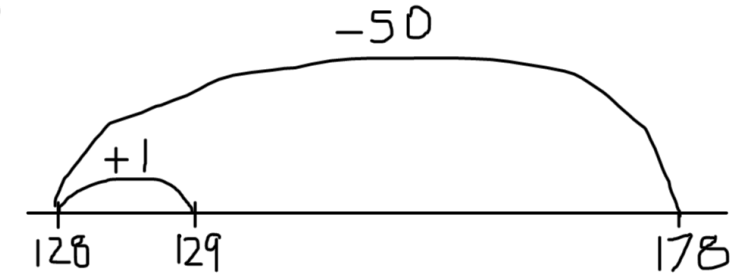
Start on 32, jump back 2 to 30, jump back 5 to 25.

$105 - 12 = 93$



Using known number facts

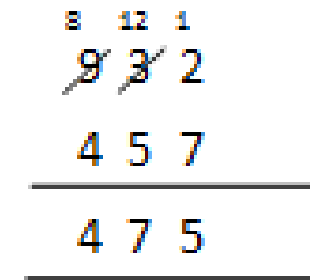
$178 - 49$



Formal methods

The Column Method...

$932 - 457 =$



Children may need to borrow a value from the next column (they must not try to swap the numbers over!) To do this cross out the value to the left and write the new value smaller above it, then carry the 1 they have borrowed to the right. In this case, the 2 couldn't take away 7 but now the 12 can.

$3.47 - 1.59 = 1.88$

