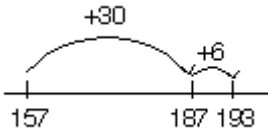
## Mental Computation - the Blank Number Line for Addition and Subtraction

Teaching mental computation strategies requires that we use problems and ways of recording solutions that allow students to share what they are thinking.

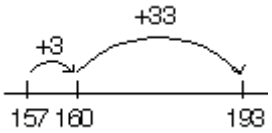
Think about adding together two numbers in your head, say 157 and 36. When this addition is carried out mentally, we often start from the left rather than from the right. An effective way to get the students to show their thinking is to have them show their solution on an empty number line.

Each student can show how he or she thought about the problem by drawing and filling in an empty number line. A student might do this by first adding 30 and then adding 6. This can be shown as follows:




**A number line showing 30 and 6**

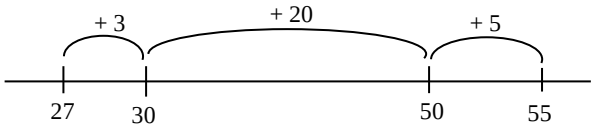
One of the interesting things about mental calculations is that we do not all think the same way. Some people start by breaking the 36 into 3 plus 33. This turns the question into the problem of adding 33 to 160.




**A number line showing adding 3 and then 33**

### The Jump Method

To subtract 55 – 27, it is often easiest to think "What do I add to 27 to get 55?".




Use the blank number lines below to record other ways of solving these problems.