Problem-solving stages

You might find it helpful to read through the four problem-solving steps below.

Example

Veronica arrives at the train station at 5.30. She needs to catch the next train to Brighton. The departure board says it leaves at 5.53. How long does she have to wait for her train?

Step 1 **Read and understand the problem.**	>	What is it about? What are you being asked to do? Will a diagram help?

It is a problem about **train times**. You need to work out how long someone has to wait for a train.

Step 2 **Work out what calculations you need to do.**	>	Do you need to add, subtract, multiply, divide? Have you done a similar problem? Underline any key words to help you.

Key words are **how long**. This will be a **subtraction** calculation. How long is it from 5.30 until 5.53?

Step 3 **Carry out the calculations and answer the problem.**	>	Try to find the easiest way of working it out - use mental or written methods. Make sure you do all the steps needed to answer the question.

The hours are the same so you can just **subtract the minutes: 53 - 30 = 23 minutes. She has to wait 23 minutes.**

Step 4 **Check your answer works.**	>	Have you answered the question? Use estimation to see if your answer is about right. Can you use a different method to check your answer (eg working backwards)?

You can check by **adding** 23 minutes to 5.30. This gives 5.53, which is the train time. So the answer works.